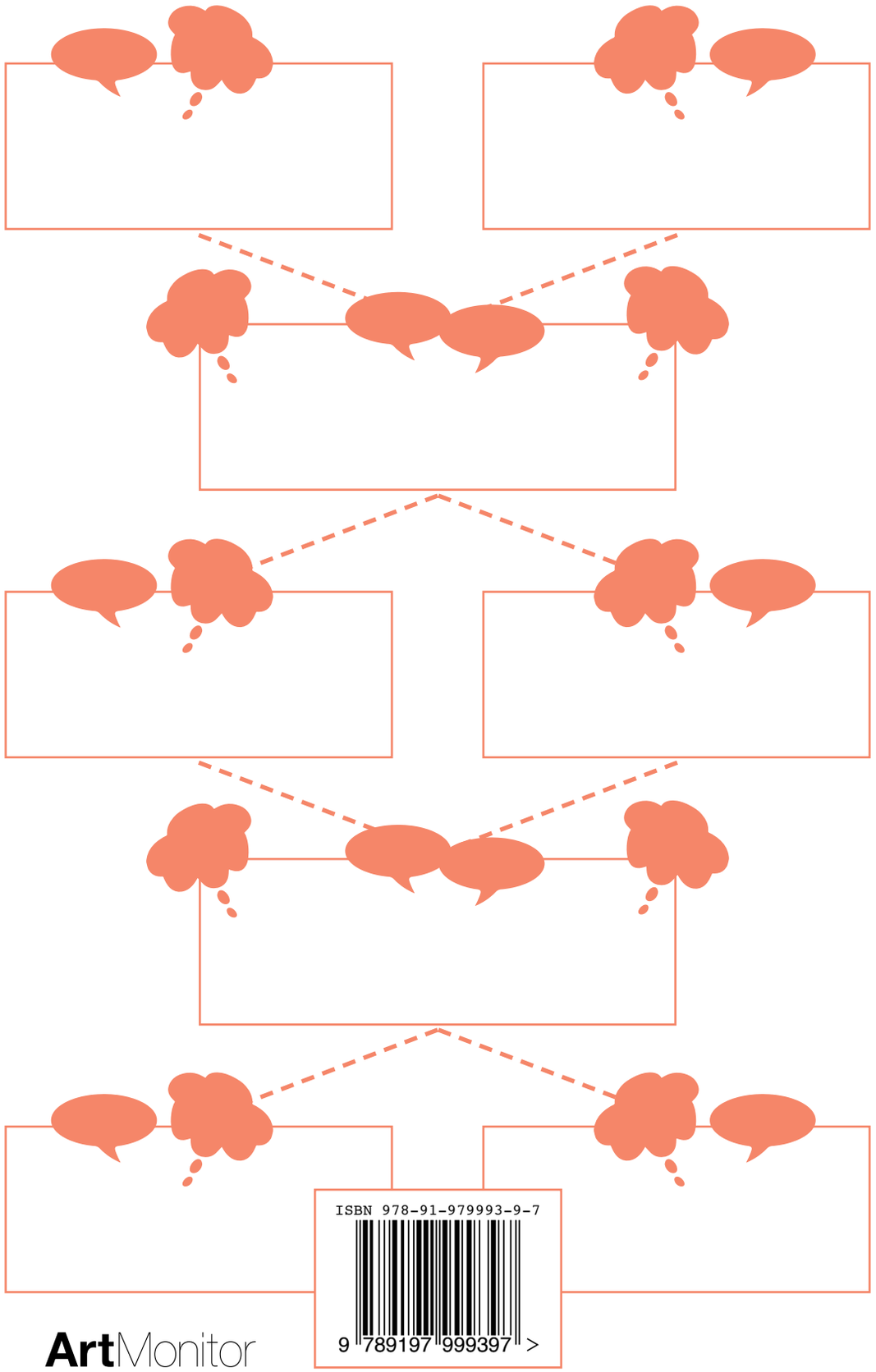

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DESIGN FOR SERVICE

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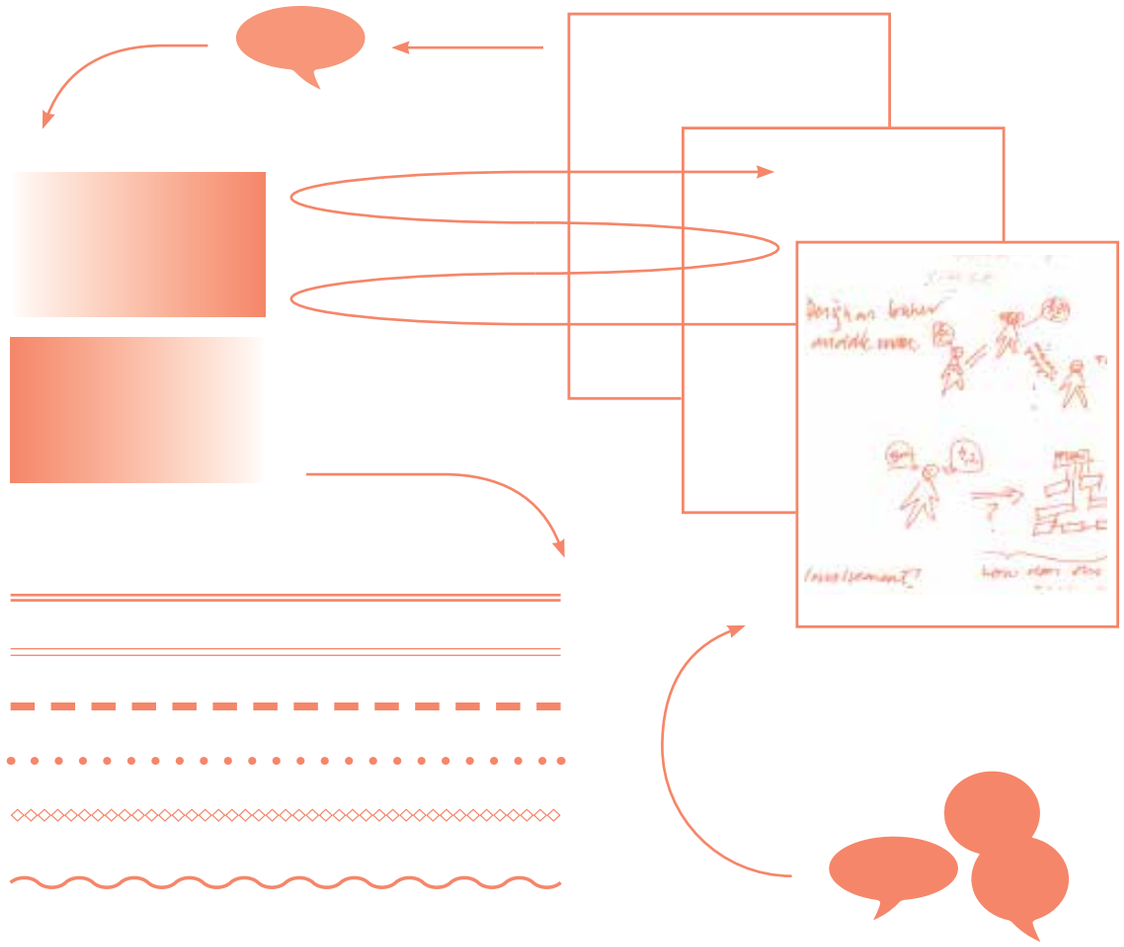
A framework for articulating designers' contribution as interpreter of users' experience



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Katarina Wetter-Edman

DESIGN FOR SERVICE

A framework for articulating designers' contribution
as interpreter of users' experience

UNIVERSITY OF GOTHENBURG

Abstract

Title: Design for Service – A framework for articulating designers' contribution as interpreter of users' experience
Language: English with Swedish summary
Keywords: Design for Service, design practice, service logic, service design, user involvement/user-centered design, materialization, narrative, experience
ISBN: 978-91-979993-9-7

During the past approximately 15 years designers have paid increasing attention to service and changes in our society, resulting in a new design discipline – service design. In parallel, designers' contributions to service development and innovation have been brought forward, often emphasizing designers' capability of involving users, acting in and through multidisciplinary teams and using visualization skills in these situations.

Previously, most knowledge about development of new services has been treated within the service marketing and management discourse, where emphasis is put on customer integration in the process, and the co-creation of the value proposition - the service. Despite both knowledge spheres, design and marketing/management, have been deeply involved in the development of new service they have hitherto essentially remained unconnected.

The overall aim of this thesis is to further explore and develop the connections between design and service logic through development of the Design for Service framework. In addition, this thesis takes specific interest in designers' contribution as intermediaries between users and organizations in service design and innovation.

Pragmatist inquiry was used for interlacing theoretical comparisons and explorations in the field to advance the inquiry. A field study of a 10-month collaboration between a design firm and an industrial company, focused on a service design workshop with customers and the outcomes thereof.

It was found that the designers worked with users' stories as design material and rematerialized them as scenarios, instead of through anticipated visualization techniques. Narrative analyses brought forward how designers organized the users' different accounts into coherent stories and in so doing they highlighted conflicts experienced in the users' value creation practices. The capacity to propose possible futures is generally argued to be core in design practice, this was however not the strongest contribution in this case. Instead the re-materialization of existing situations was the real contribution. Through interpretation the users' experience was made relevant and actionable for the industrial company.

This thesis connects research in design practice, user centered design and service logic through development and refinement of a framework - Design for Service. The framework articulates designers' contribution in terms of value creation. Through this connection designers' contribution and service design are repositioned from a specific phase of service development to an interpretative core competence for understanding users and value creation in service innovation.

Swedish Summary

Titel: Design for Service – A framework for articulating designers' contribution as interpreter of users' experience
Språk: English with Swedish summary
Keywords: Design praktik, tjänstelogik, tjänstedesign, användarinvolvering, narrativ, upplevelse
ISBN: 978-91-979993-9-7

De senaste 15 åren har yrkesverksamma designers i allt högre utsträckning ägnat sig åt tjänster och samhällsförändring. I spåren av denna utveckling har det bildats en ny designdisciplin - tjänstedesign. Samtidigt har designs bidrag till innovation och utveckling framhävts allt mer. Designers kompetens i att involvera användare, nyttja multidisciplinära team och förmåga att visualisera tillhör det som oftast lyfts fram.

Tidigare har kunskap om utveckling av nya tjänster framförallt diskuterats inom företagsekonomi, och då främst inom tjänsteinnovation och service management. Medan en tyngdpunkt inom tjänsteinnovation har legat på hur och var kunder ska integreras i tjänsteutvecklingsprocessen har service management fokuserat på att utveckla en tjänstelogik. Det vill säga hur och var värde samskapas när det realiseras. De två kunskapsområdena, som båda är djupt involverade i utvecklingen av nya tjänster, har hittills varit svagt sammankopplade.

Det övergripande syftet med avhandlingen är att stärka relationerna mellan design- och tjänstelogikforskning genom utvecklandet av ett ramverk – Design for Service. Dessutom fokuserar avhandlingen på designers bidrag som mellanhand i förhållande till användare och organisationer i tjänstedesign och innovation.

Avhandlingen bygger på teoretiska jämförelser och undersökningar på fältet. Dessa har sammanflätats genom ett pragmatistiskt undersökande förhållningsätt. Med etnografiskt inspirerade metoder har jag studerat ett tio månader långt samarbete mellan en designbyrå och ett industriföretag. Speciellt fokus lade jag på att analysera en tjänstedesign workshop med företagets kunder.

Analysen visade att designerna arbetade med användarnas berättelser som designmaterial. Berättelserna materialiserades i scenarier i stället för genom förväntade visualiseringar. En narrativ analys visade hur användarnas beskrivningar organiserades om till sammanhängande berättelser genom design. Därmed lyfte designerna fram upplevda konflikter i användarnas värdeskapande processer. Inom design framhålls ofta förmågan att föreslå möjliga framtida situationer. I det här fallet är det snarare förmågan att omformulera existerande situationer som är bidraget för fortsatt innovation. Den designmässiga tolkningen av användarnas berättelser gjorde deras erfarenheter relevanta och möjliga att agera på för det industriella företaget.

Avhandlingens bidrag är att den länkar samman forskning i designpraktik, användarcentrerad design och tjänstelogik genom utveckling och specificering av ramverket Design for Service. Med hjälp av ramverket kan designers insats formuleras i termer av värdeskapande. Istället för att begränsas till en specifik fas i tjänsteutvecklingen kan designers tillföra en tolkande kärnkompetens för att förstå användare och värdeskapande för tjänsteinnovation.

Contents

Acknowledgements

To start an academic career was not an evident choice for me. I resisted as long as I could, not seeing myself as a scholarly person I was (and still am) a designer – yet there was someone more persistent than me. Now, some eight or nine years after the first persuasive attempts started, I am very happy to be in the middle of an academic career. The person I want to thank for this, for opening the doors and establishing Business and Design Lab is Professor Ulla Johansson - Sköldberg, my supervisor during the first 2,5 years.

For the remaining 2,5 years, Stefan Holmlid, Assistant Professor at Linköping University has been my supervisor. I met him in Linköping over 20 years ago. Thank you Stefan, for your personal support and guidance, for asking straightforward questions, showing the options and letting me make the decisions. Your support has been invaluable. Dr. Anna Rylander, Business and Design Lab, you have supported me from the start, and our discussions with you have been central in my development of thought. Your feedback and advice you have given me have been vital for finishing this work. Thank you Anna for pushing me that extra bit, I know you wanted me to go further – lets continue the inquiry together. Last, but not least, Assistant Professor Peter Magnusson, who was involved in both the first and second funding applications and has been my connection at my physical location, CTF. Thank you, Peter, for sharing your scientific knowledge and for your calm way of asking questions and giving me perspectives. Furthermore, I want to thank Professor Bo Westerlund at Konstfack, with your thoughtful questions

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By moving between design research and service research, I in many ways impersonate the integration which I describe in this thesis. The green sofa and 'the management by fika' culture at CTF, have provided me with a physical workspace, a collegial atmosphere and an expanded academic context. Thank you to you all! Special thanks to Pernille for asking those obvious and annoying questions, and Carolina who has endured my endless monologues, read texts and thus helped me to clear my thoughts.

Helén; friend and colleague - we fall down the ladder, and then we climb up again, stronger than before! Thank you for being there!

Thank you Jill for doing so much more in addition to 'deswinglishing' this text, without you the thesis would have been a much more difficult read. Also Berit Hjort at Karlstad University library, you deserve to be thanked for being supportive during the years and not least for checking the reference list. The remaining errors are only to be blamed on me.

Furthermore none of this research would have been possible without funding. First, thanks to VINNOVA's program *'Service development and service innovation'*, and the call *'Service innovation through increased customer involvement'*, conducted January 2009 through September 2011, Project number 2007-02877. The project was based at Business & Design Lab, BDL, in Gothenburg, Sweden. BDL is a co-operation between The School of Arts and Crafts and The School of Business, Economics and Law at University of Gothenburg. The next 1,5 years were funded through The Knowledge Foundation (KK stiftelsen); *The new*

service economy+: Customer experiences, *20100319*, located at CTF and Karlstad University,[1] and finally the grant for the project *Making sense of design work, E44/10* from the Torsten Söderberg Foundation has made it possible to finalize this thesis. Thank you all for believing in the need to further explore design practice contribution in relation to service innovation and organizations. In addition I would like to express appreciation to the companies that have opened their doors for the research projects and me. These people are in this thesis known as Christopher, Walter, Anna and Victor. Thank you for generously sharing your time, experiences and reflections. In this work I only had the possibility to include a small part of all the conversations we've had.

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Sara, Ludvig and Alexander – thank you for letting me be a part of your lives, you all mean so very much to me.

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Tomas, you know how much you mean to me. Thank you for being there for our family when I have been absent in mind or body. Thank

1. In Swedish: Den nya tjänsteekonomin+: Kundupplevelser, CTF - The service research center

you for giving me the space needed in time, place and mind for doing and not least for finishing this thesis. At times you helped me to gain distance, at times we were fully engaged in each other's thinking – this accomplishment is ours to share. I could never have done this without you at my side.

Forshaga, 4th of February, 2014
Katarina Wetter Edman

Prologue
– A personal point of departure

As a practicing designer I often came upon situations where I felt like I came from a different planet. I could probably relate to the expression that engineers are from Mars and designers from Venus, but in my case the counter discipline has most been marketers rather than engineers. I don't know what planet should be assigned to them - Pluto would be to small and far away, Jupiter with the rings would give yet other connotations; I will not take this metaphor any further.

However, the tension between disciplines was there, although there was supposedly a joint purpose with the activities of bringing new products or services to the market. It seemed as if professionals based in design practice approached the process of developing new offerings from a different position than professionals based in disciplines based in a business administration tradition.

In my previous practice experience I had argued for the potential of integrating design competence, both as an internal design manager and as a designer responsible in governmental funded projects. But every so often I felt that I couldn't articulate the contribution of design in a way that made sense to the people I talked to, or even to myself. My practice-oriented, studio-based industrial design education had prepared me for doing design, not to argue for or to explain design. That said, I often claimed design's role in regards to involving users and visual and artistic competence. In projects I worked with we often used methods and tools for promoting design as a collaborative and multidisciplinary approach, but did not couple it with the now fairly widespread notion of

design thinking. In these situations I experienced that design methods brought something with them, specifically a focus on users and how to place them and the understanding of their contexts in the center for development of new services or products.

I first heard of service design at a national conference organized by the Swedish Industrial Design Foundation (SVID) in 2005. In my role as design manager in a national program for design and packaging I started to discuss service design and designers' integration of users with service marketing and management researching friends at CTF - the Service Research Center at Karlstad University. This, together with the founding of Business & Design Lab (BDL) at HDK- School of Design and Crafts, Gothenburg University and discussions with Ulla Johansson - Sköldberg about the tensions between design and management, initiated my move into academia. I started out with the question of how the involvement of users differs in the design and service marketing/management discourses. My experience was that designers attend to users in ways others than those usually described within the service marketing/management tradition. This can be said to be the first itching, the first feeling that there might be some kind of a doubtful situation worth further inquiry. In addition, I find the incapability of design (practitioners and researchers) to make their voices heard in forums other than the ones consisting of the people already convinced frustrating. Thus an underlying agenda has been to explicitly articulate design in non-designerly forums.

In order to start to find a resolution to this inquiry I embarked on a doctoral education that has been partially funded by VINNOVA through the project *Design methods for increased user involvement in service innovation (BDL, School of Design and Crafts, Gothenburg University, 2009 – 2011)*. The project made it possible for me to be in the field initiating and observing designers at work with an industrial organization and their customers, and to develop my theoretical foundations. The focus of the field study was to follow how designers worked with a company's after market and services division and their customers. The emphasis of this collaboration was increased understanding of what the customers perceived as value creating activities. The result from the design project would then serve as one platform of information for further service development processes.

The second source was a project funded by The Knowledge Foundation

(KK-stiftelsen); Customer Experience+, where my work package, *Designers the missing link to accomplish customer value (CTF, Karlstad university, 2011 – 2013)*, gave me the possibility to further explore the field material, continue my relation with persons taking part in the first field work, and continue the exploration of connections between approaches to user involvement in design and service research. Finally, the grant for the project *Making sense of design work (BDL, Gothenburg university 2012 –)* from the Torsten Söderberg Foundation has made it possible for me to immerse myself in the project and merge the outcomes and experiences and finally put this thesis together.

Through reading of the three project titles it is possible to see the development in my work - from being focused on the methods of design to an interest in design practice and what design practice achieves in the relation between the client organization and the client's customers –the users. Specifically, I have concentrated my attention on the situation where design practice takes an interest in applying designers' competence in relation to information from and about users in a service context.

This thesis is a further development of thoughts developed in my licentiate thesis[2] published in 2011, and a synthesis of a set of papers published during 2009-2013 listed below. All of them have influenced my thinking and been part of the development of my thought, although not all of them are explicitly referred to in this work.

Now, at the end of this research project I believe that I can articulate at least one of designers' contributions as intermediaries: as being interpreters of users' experience. How this is done is detailed in the following 10 chapters.

2. In Swedish and Finnish universities, a Licentiate's degree, recognized as a predoctoral degree, is equal to completion of the coursework required for a doctorate and a dissertation which is formally equivalent to half of a doctoral dissertation

List of publications:

Wetter-Edman, K. (2009). Exploring overlaps and differences in service dominant logic and design thinking. In S. Clatworthy, J.-V. Nisula & S. Holmlid (Eds.), *Proceedings of 1st Service Design and Service Innovation conference, ServDes.2009, DeThinking Service, ReThinking Design. Oslo, Norway, November, 24-26* (pp. 201-30). Linköping: Linköping University Electronic Press.

Wetter-Edman, K. (2010a). Comparing design thinking with service dominant logic. *Design Research Journal*(2), 39-45.

Wetter-Edman, K. (2010b). *The concept of value in design practice : An interview study*. In S. Clatworthy, J.-V. Nisula & S. Holmlid (Eds.), *Proceedings of 2nd Service Design and Service Innovation conference, ServDes.2010, ExChanging Knowledge. Linköping, Sweden, December, 1-3* (pp. 87-100). Linköping, Sweden: Linköping University Electronic Press.

Wetter-Edman, K. (2010c). Exploring overlaps and differences in service-dominant logic and design thinking. In J. Woodilla (Ed.), *New perspectives in design management: Selected writings on design management from Business & Design Lab 2007-2010* (pp. 279-298). Gothenburg: Business & Design Lab Publications.

Wetter-Edman, K. (2011). *Service design: A conceptualization of an emerging practice* (Licentiate thesis). Gothenburg: University of Gothenburg.

Wetter-Edman, K., & Johansson, U. (2011). *The Meander model: A metaphor for user involvement in service design*. Paper presented at the The Endless End, The 9th International European Academy of Design, EAD09, Porto, Portugal, May 4-7.

Wetter-Edman, K. (2012). Relations and rationales of user's involvement in service design and service management. In S. Miettinen & A. Valtonen (Eds.), *Service design with theory: Discussions on change, value and methods* (pp. 107-116). Rovaniemi: Lapland University Press.

Wetter Edman, K., & Camén, C. (2013). *Design thinking in public procured contract-is it possible?* Paper presented at the 13th International Research Symposium on Service Excellence in Management QUIS 2013, Karlstad, Sweden, June 10-13.

Wetter-Edman, K., & Magnusson, P. (2013). *Narratives for probing contex: Observing service designers at work*. Paper presented at the 13th International

Research Symposium on Service Excellence in Management QUIS 2013, Karlstad, Sweden, June 10-13.

Wetter-Edman, K., & Magnusson, P. (2013). *Design as a driver for servitization*. Paper presented at the 20th International Product Development Management Conference, Re-enchanting technology, Paris, France, June 23-25.

Wetter-Edman, K., Sangiorgi, D., Edvardsson, B., Holmlid, S., Grönroos, C., & Mattelmäki, T. (2013). *Design for Service comes to Service Logic*. Paper presented at the Naples Forum on Service, Ischia, Napoli, June 18-21.

Wetter-Edman, K., Sangiorgi, D., Edvardsson, B., Holmlid, S., Grönroos, C., & Mattelmäki, T. (2014). *Design for value co creation: Exploring the synergies between design for service and service logic*. Manuscript submitted for publication.

1

Introduction

> When we work with Scania or Volvo and they have a vision that 70% of the turnover should be service based. It's not only about service of that car, but it is to create a package and sell it. And we need to keep up as design developers, and develop offerings for our clients. We have to sell that service as well.
>
> Victor, AllDesign, February 2011.

During the past approximately 20 years design from various design disciplines has taken both a pro-active, explicit interest in the development of services and been called upon as a new and fresh competence in service development and innovation. A new design discipline called service design has emerged, and from a business and management perspective Design Thinking has become the label for integrating design perspectives for innovation purposes in organizations.

Services are understood in broad connotations, including service offerings in industry, tourism and hospitality services, and governmental services; social security and health care as well as public policy; all have been subjected to design.

In these settings (industrial) design practitioners and (industrial) design as a discipline meet challenges other than ones well known through years of working with product development with and within organizations.

- Instead of shaping plastics and metal, doorknobs and medical instruments design practitioners set out to shape interactions, systems and people.
- Instead of entering into the organizations through R&D departments and engineers they meet the marketing department and service marketers, managers and human relations professionals.
- Previously designers were members of a defined design practice with a specific area of competence; now designers from different design disciplines are working with non-designers from various areas, and design's contribution becomes muffled.

This thesis explores these tensions and the contribution of designers as intermediaries in design for service when they involve users and customers.[3] This is accomplished through the synthesizing of theories from different bodies of literature in a framework as well as an in-depth field study into service design practice. In this introductory chapter I establish the contextual and theoretical background, detail the research questions, and present the structure of the thesis.

Research context and theoretical background

It has been stated over and over during the past decades that the service economy is growing, both in regard to employment and to revenue figures (e.g., S. Brown, Fisk, & Bitner, 1994; Heskett, 1986; Spohrer & Maglio, 2008). Fifteen years ago Pine and Gilmore (1998) suggested that the society is moving from a product-centered to an experience-centered economy, and since then the Internet has facilitated the development of our networked society, escalating the use of social media and networked

3. 'User' is in design literature used for depicting the actor engaging with a product or a service offering, this can be both a paying customer or a company representative. 'Customer' is more common in marketing and management literature. Most often used within the more limited connotation of being the paying actor. I will from now on use 'user' for embracing both these connotations, except in the respective literature reviews were I attend to the concepts in the respective bodies of literature.

businesses. Today the service sector represents more than 70% of the gross domestic product in developed countries and above 90% in Hong Kong (Table 4.2, The World Bank, 2013). One component of this growth is the re-positioning of service industries from a specific sector such as hospitality and tourism to being a component of all kinds of business.

The roots of industrial design are intimately coupled with industrial production. For good and for bad designers have been strong partners in creating products that take into account economic, ergonomic and desirable features. But design can also be considered a strong suspect in driving the desire for consumption, trends and new technological devices. Industrial and product design have each made a strong claim for having users as their starting point and acting as their spokespersons in the industrial context, see for example, the design classic *Designing for People* by Henry Dreyfuss (2003) or *The Human Dimension* by Swedish design advocate Thorsten Dahlin (1994). Several authors have noted that industrial design is a child of modernity and (maybe even a parent of) consumption culture (Julier, 2000; Sparke, 2004), and when the focus of production and consumption changes, designers follow.[4]

A brief introduction on design and service design

'Design' is a word with many uses and connotations, used intentionally in a variety of ways, and misused in many. From a disciplinary perspective design as a concept has been diluted, and is now used in almost any context having little connection and resemblance with the profession of designers. There are three different ways that the concept of design is commonly used: as product – the outcome of the process; as the working process itself, and as professional practice. The sentence "The designer designed a designed design"[5] is perfectly valid, but does not make it easier to understand this multi-faceted concept.

4. I realize that this might be a problematic statement. In a sense this is 'true', in another sense designers are part of promoting alternative ways though social and critical approaches. However, the mainstream of practicing designers is part of the commercial hamster wheel.
5. Design can also be used as an adjective – Look a designed chair!

Positioning Design

In the context of this thesis design is discussed as process and professional practice; however, I do this in relation to the changing context in which design and designers act. This includes the changing outcome of design, which touches all three connotations of the word. I also remind the reader that my starting point of design is in the conception of design as industrial or product design.

During the past approximately 20 years design has been increasingly considered as a resource in development and innovation of new products and services, although research in design practice and processes goes back yet another 40 years (Bayazit, 2004). My study is situated in such a commercial context, where designers' competence is used for improving service offerings.

With the expansion of what is considered to be the subject matter for designers, there followed an interest in both defining what design 'actually' is and in the position of design in relation to other knowledge areas. A multitude of different design practices have developed; however I will first position my understanding of design per se. There is a wide range of definitions of design, and these can be discussed at length. Friedman argues that they share three attributes: "First, the word refers to a process; second, this process is goal oriented, and third, the goal of design is solving problems, meeting needs, improving situations, or creating something new or useful" (Friedman, 2003 p. 508). This understanding of design relies on Simon's widely used and accepted definition of design: "design is the transformation of existing conditions into preferred ones" (Simon, 1996 p. 111), relating design to what people do when they exercise the general human ability to conceive, create, and change the course of action. Simon further understands design as a purposeful problem solving activity, design problems being defined as ill-structured (for further reading on Simon's view of well- and ill-structured problems see Simon, 1973).

In line with these thoughts, in the 1960's there was a strong interest in methods and descriptions of the design process, also called the design methods movement (Bayazit, 2004; Cross, 2007). Attempts were made to make the design process as predictable as possible, and diagrams and flow charts were drawn of *how the design process* should be conducted. This approach fitted well with engineering approaches to design and new

product development. However, discrepancies were found between the descriptions of design processes and what designers actually did.

Although one important starting point for design research in its own right, Simon's broad definition also caused problems. The critique has mainly been related to Simon's positivistic heritage, considered to be incompatible with the more organic ways in which designers actually work (Dorst & Dijkhuis, 1995). Dorst (2006) discussed the problematic of even framing design as a problem-solving activity, regardless of whether there is a well or ill-structured problem[6]. Certainly, arguing for such framing relies on a rationalistic understanding that there is a problem to be solved and methods for how this should be solved. Instead, Dorst considered the importance of the situation that is brought forward, saying there is a need for a subjective understanding of and in a particular situation.

In the early eighties Schön (1983) proposed a more interpretive understanding of design practice as reflection-in-action, focusing on what designers actually *do* in the situation rather than abstracting the entire process to flow charts. He studied the relation between architecture students, teachers and their interactions in teaching situations (Schön, 1985). He reported on how the visualizations and discussions were integrated in the mutual development of the design situation at hand. In addition he found that the design process and the interaction between students and teachers could not be described as result of rational problem solving process. Instead, the designs developed through the interaction with the design material, sketches, and reflections on what these sketches meant. This was framed as *reflection-in-action*, described as the designer's reflective conversation with the situation Schön (1983). Thus the focus is the professional practice of design rather than the process per se. There are also critiques of Schön's theory of design as reflective practice, arguing an influence of positivistic and rationalistic thought (Dorst, 1995) and exclusion of artistic practices (Jahnke, 2013). However, one can also bring forward Schön's close relation to the pragmatist philosophy of John Dewey 's theory of inquiry and aesthetic experience (Telier *et al*., 2011). Schön wrote his dissertation on Dewey's

6. For an in depth discussion on the topic of design as problem solving activity see pp. 69-82 in Jahnke's disssertation (Jahnke, 2013).

theory of inquiry (Smith, 2001) in which the interest of the process lies in the meeting with the real life experiences and openness to an open process of inquiry. Through this perspective design practice and practitioners can be understood as a craft practice, as pragmatist Richard Sennett puts it:

> Every good craftsman conducts a dialogue between concrete practices and thinking; this dialogue evolves into sustaining habits, and these habits establish a rhythm between problem solving and problem finding. (Sennett, 2008, p. 9)

Here Sennett emphasizes the process of finding the problem (e.g., situation, subject matter) to work with in the same continuous movement forward as potential solutions are worked with. Through these developments design is rather seen as knowledge and capability than a specific process or method. The core in designers way of thinking argues Dorst (2011) still in close affinity with Schön's thoughts, is the potential to create new frames for interpretation. In a similar line of thought design theorist Krippendorff (1989, 2006) argues that design is about 'making sense' of things and can basically be understood as interpretative practice. This was further developed by Verganti (2008), who emphasized meaning-making in relation to innovation. Press and Cooper (2003) also described the designer as a maker that makes meaning possible, in effect, they argue, the designer is a cultural intermediary.

Design seen as any type of activity or a person's skills for changing their situation at hand can be compared to how accounting is used for making home budgets. That people do so is seldom confounded with the professional discipline of accounting. In this thesis I am specifically interested of how designers, the people who make the activity of designing their profession and discipline contribute to service development. A set of professional disciplines that are concerned with purposeful design is what I consider to be Design.

The changing design practice

Although designers doing product design have paid attention to the wider context of use since the very early beginnings of industrial production,

the focus of design activity has been the object per se (Dreyfuss, 2003; Pye, 2007). In recent years there has been much discussion about the transformation of industrial design and design practice from a focus on the relative simplicity of individual products to dealing with increasing complexity (e.g., Inns, 2007a; Manzini, 2009; Thackara, 2005). In effect, industrial design practice has always been exploring new territories. Anna Valtonen (2007) described how the Finnish industrial design developed through the decades, arguing that industrial design has taken on an increasingly larger scope, from giving form to shaping strategies, not as the output of individual designers but as a practice that claims to be relevant for more and more new areas. Buchanan argues for a development not directly connected to the different design disciplines, but rather connected to what design acts on, this can be framed as the design material. Symbols come first, then the 'things' or the design of material objects including traditional concerns related to material, production and shape, but now this has expanded into "…diverse interpretation of physical, psychological, social and cultural relationships between products and human beings." (Buchanan, 1992, p. 9). Symbols and things are the focus of design in the 20th century, argues Buchanan, but, "unless these become parts of living experience of the human being, […] they have no significant value or meaning" (Buchanan, 2001, p. 11). It is the relationship between the symbols, artifacts and human beings that is the focus of the third order of design - action. The last and fourth order of design focuses on environments and systems. The emphasis is on human systems and integration of information, physical artifacts and interactions, according to Buchanan. This change of focus in design practice, from relatively simple products to complexities related to interactions and systems is evident in the quite newly developed design discipline of service design. Additionally there are some closely connected concepts such as social innovation (e.g., Blyth & Kimbell, 2011; Hillgren, Seravalli, & Emilson, 2011) and transformation design (e.g., Burns, Cottam, Vanstone, & Winhall, 2006; Sangiorgi, 2011).

Positioning service design

The discipline of service design[7], the more explicit focus of this thesis, has been described from a design perspective as *design of interactions*

at different interfaces (Pacenti & Sangiorgi, 2010; Sangiorgi, 2009; Secomandi, 2012), as *the design of experiences through touchpoints and over time* (Clatworthy, 2013; Moggridge, 2007), as *applying design methods and principles, designerly ways of working, to the development of service* (Holmlid & Evenson, 2008; Segelström, 2013), or even as an area that is not possible to define due to its interdisciplinary character (Sleeswijk Visser, 2013; Stickdorn, 2010).

As mentioned, the interest for design has grown immensely during the past two decades where designers and design researchers have approached the service field as a new possible object of design, introducing a creative, human centered and iterative approach to (service) innovation (Blomkvist, Holmlid, & Segelström, 2010; Meroni & Sangiorgi, 2011; Pacenti & Sangiorgi, 2010). Further, design based approaches for innovation may include working with user - centeredness, multidisciplinary teams, aesthetic and visual competence and creative processes (T. Brown, 2009; Kelley, 2001; Press & Cooper, 2003).

Descriptions of service design practice shares several characteristics with descriptions of Design Thinking[8] in the business press (T. Brown, 2008; Dunne & Martin, 2006; Martin, 2009). Both are described as highly empathic, user centered and as using visualizing for reflection and communication throughout the process. Similarly both have been critiqued for excluding more provocative and challenging aspects of design such as aesthetic competence and critical perspectives (e.g., Jahnke, 2013; Kimbell, 2012; Penin & Tonkinwise, 2009; Tonkinwise, 2011).

These descriptions repeatedly emphasize the central role of the user and other stakeholders, foremost in in the development process but also

7. I have previously traced the history and development of service design as discipline of practice and academic field (Wetter-Edman, 2011) and more recently it has been exhaustively covered in dissertations published in the past two years having the explicit purpose of describing and situating service design (see: Clatworthy, 2013; Secomandi, 2012; Segelström, 2013; Singleton, 2012).

8. Design Thinking as diverging concept in design and business discourses has been widely discussed during the past approximate 10 years. I will only briefly touch upon Design Thinking in the present work. For overview and critical discussion see e.g. Johansson Sköldberg, Woodilla, & Çetinkaya, (2013), Kimbell, (2011b, 2012) Tonkinwise (2011) and its relation to design and innovation (Carlgren, 2013; Jahnke, 2013).

in the realization of a service. In both service design and Design Thinking user- or human centeredness[9] is brought forward as a central virtue as well as the multidisciplinary character of design work. As described in Meroni and Sangiorgi (2011), a human - centered design approach consists of the capacity and methods to investigate, understand and engage with people's experiences, interactions and practices as well as their values and dreams.

The work in this thesis relates foremost to the transition of industrial design in relation to service design. Service design is described as interdisciplinary; integrating expertise and practices from different design disciplines (e.g., interaction, design ethnography and product design) as well as service marketing management practice and research (Meroni & Sangiorgi, 2011; Miettinen & Valtonen, 2012; Stigliani & Fayard, 2010).

In service marketing and management understanding the customers through customer orientation and involvement is key for service development and innovation. Models and methods for understanding customers have been developed through research in service quality, and applied extensively by management practice. Development of measuring scales of quality and performance has become widespread through the GAP model, Servqual, and Servperf (see for example: Parasuraman, Zeithaml, & Berry, 1985; Parasuraman, Zeithaml, & Berry, 1988).

However, despite these efforts there seem to be gaps between what the company and the customers consider to be satisfactory service. A report from the consultancy firm Bain & Company states that out of 352 firms, 80% believe they deliver a superior service, however only 8% of their

9. A basic premise in service design practice is that it is inherently user centered (Holmlid, 2009; Meroni & Sangiorgi, 2011; Stickdorn, 2010). The umbrella term User Centered Design (UCD) covers a broad spectrum of approaches that in general is divided by the methods and tools used for interacting with the users (e.g. Hanington, 2003; Rosted, 2005). The main methods in user-centered design aim at meeting the needs of the user by collecting, analyzing and interpreting data. Human Centered Design (HCD), proposes a broader perspective than 'user', implicitly pointing out a particular use situation. Hanington (2003) preferred this term, pointing to design's closeness to human needs and concerns. Krippendorff, (2006) emphasizes HCD as a perspective that takes the criteria from the stakeholders' lives and makes them available to the larger community through the design process.

customers agree (Allen, Reichheld, Hamilton, & Markey, 2005). I will argue this discrepancy has to do with how the customers, their needs, and expectations are understood. In addition, I suspect that the customers do not perceive the service as the same entity as the companies providing it. For example, the service company may very well have higher customer satisfaction scores on their web-based channels, or how their marketing material is received, than when measured on distinct and separate services. However, for the customer the service is not perceived as distinct and separate activities but as the complete offering from the company.

When design practitioners approach these new and expanded areas framed as service design, and design methods and processes are used with or without professional designers, framed as design thinking, several issues are raised.

First, and on general level the explicit competence of designers and the contribution of design is questioned or at least unclear. The designer's contribution as form giving of a car is comprehensible, while the designer's contribution as process for improving health-care is more detached from a traditional understanding of design.

Second, as a consequence, arguments emphasizing designers as user centered, prone to visualize and using creative and iterative processes are brought forward. As mentioned, aesthetic qualities beyond visualization skills are rarely discussed in terms of contribution and are also difficult to relate to in traditional management processes.

Third, questions are raised on the topic of what is really the service to be designed. The large gap between the firm's and customers' perception mentioned above suggests that there are different ideas on what is to be perceived as a service from a customer or firm perspective.

Based in the above overview of design, service design and some of the implications thereof, in this dissertation I take specific interest in the question of what designers contribute through the involvement of users and customers in service design and innovation.

I do so foremost in relation to one of the other disciplines deeply engaged in development of new services; service research and more specifically service marketing and management. In the following section I first describe recent developments in service research and then position my

research project within the emerging research area of Design for Service.

From services as products to service as value creation

The development and innovation of new services is predominantly discussed within the service marketing and management discourse that evolved from marketing in the late 1970's out of a realization that service marketing differed in many ways from the traditional marketing of products (Shostack, 1977). Following this insight, research emerged that established services and service research in relation to products (Zeithaml, Parasuraman, & Berry, 1985). The driver behind the development of service marketing in academia was the growing service economy, specifically the deregulation of several service-intensive areas in the 1980's, such as the airline, financial service and telecommunications industries (Baron, Warnaby, & Hunter-Jones, 2013; Berry & Parasuraman, 1993; S. Brown *et al*., 1994). The research area has been cross-disciplinary from the beginning, treating issues such as quality management, design and control of intangible process and organizational issues, and resulting in an overlap between marketing and operations functions (Berry & Parasuraman, 1993; S. Brown *et al*., 1994). Thus, the research streams of service marketing/management were difficult to separate. Lynn Shostacks' (1977) *Harvard Business Review* article 'Breaking free from product marketing' is regarded as seminal for the field, and also showed the influence of practitioners in the development of the research areas[10]. The article argued that the traditional marketing mix with its product focus was not suitable for service companies.

Instead four characteristics that spelled out how services differed from products were defined. These differences were later abbreviated IHIP: *Intangibility* – services are not tangible, therefore they cannot be judged before consumption, for example, compare a sweater with a bus trip; *Heterogeneity* – the people that take part in the service delivery process, provider and consumer, are unique at each occasion, therefore it is not possible to reproduce a service; *Inseparability* of production and

10. Lynn Shostack was at the time Vice President at Citibank North America, and Marketing Director for the Investment Management Group (Shostack, 1977).

consumption – services are consumed and produced at the same moment, hence the planning and development process must be different; *Perishability* – service cannot be stored or saved (Lovelock & Gummesson, 2004; Zeithaml *et al*., 1985).

The IHIP model was widely accepted and used, however, the model has also been critiqued. The main critique concerned services being described in relation to products, so that the focus easily became what services are not, which could block possibilities of seeing important aspects. Another critique was the fact that the IHIP model does not account for what services have become in practice. In fact, the character of service has changed enormously with the development of networked technologies since the early 1980's. This can be seen as one major reason why the formerly dualistic description of services was no longer regarded as relevant.

New ideas of how to describe the nature of services emerged where the emphasis was on service as a perspective one value creation rather than as a replacement of products and as such saw "service as category of marketing offerings" (Edvardsson, Gustafsson, & Roos, 2005, p. 118). Examples of service as perspective included the relational aspects of the service encounter (Grönroos, 2000; Gummesson, 1995), and the character of value creation as being a value constellation rather than a value chain (e.g Normann, 2001; Normann & Ramirez, 1993).

Some 20 years after IHIP Vargo and Lusch, (2004, 2008a) synthesized various literature and proposed an alternative view. Instead of separating products and services as the IHIP model tended to do, they suggested service as a perspective on value creation and proposed a new market logic, Service-Dominant Logic. The core change was that we as customers integrate our knowledge and capabilities with those from the firm (both people and artifacts) in co-creation of value. This understanding of service changed the conceptual position of the customer from being a 'passive' consumer, of interest to the firm in the moment of purchase to an active co-creator of value. It also broke the formerly well-accepted sequential value chain perspective and enhanced the understanding of value created in use and context, for example through value constellations (Normann & Ramirez, 1993). At the same time, requirements of how to involve users in the development process change when the user/customer becomes an active co-creator of value (Ostrom *et al*., 2010).

A stream of critical service logic[11] has developed bringing forward the position that it is the organization that takes part in the customers' co-creation of value rather than the other way around (Grönroos, 2008; Heinonen, Strandvik, Mickelsson, Edvardsson, & Sundström, 2011). Value co-creation is assumingly always a positive value, however, the idea of value being co-destructed is equally important to understand (Echeverri & Skålén, 2011). If the proposed value co-creation really occurs in harmony and joint acceptance has also been debated (Cova & Dalli, 2009). In addition, Grönroos and Voima argued: "The underlying, though never explicitly formulated, view of value creation is of an all-encompassing process, including activities by service providers, customers, and possibly also other actors, which leads to the conclusion that everything is value creation and everyone co-creates value" (2013, p. 144). Thus developed the argument that the broad conceptualization of value creation in service dominant logic as a mindset is very difficult to use for analytical purposes (Grönroos, 2011; Grönroos & Voima, 2013).

Positioning of research

Service design is the design practice and discipline that is the starting point of this study. Practitioners and a growing body of research discuss various aspects of service design practice, often in relation to other design disciplines such as interaction and industrial design. This follows from understanding service as a category and understanding value as sequential, rather than the view of service as perspective as discussed above.

11. Although I acknowledge Service-Dominant Logic and Service Logic to be two nuances this thesis will make use of concepts from both streams of research. I will in the remainder of this thesis use Service Logic, for reasons of readability and also to avoid confusion with the SD abbreviation that easily reads as Service Design in design context. However, within service research Service-Dominant Logic (SD logic) as introduced by Stephen Vargo and Robert Lusch is one distinct stream(Lusch & Vargo, 2014; Vargo & Lusch, 2004, 2008a). Where as other scholars have preferred to omit the 'dominant' to avoid confusion with other concepts of dominant logics associated foremost with Christian Grönroos and colleagues (Grönroos, 2008; Grönroos & Ravald, 2011; Grönroos & Voima, 2013).

The concept risks becoming limiting by marginalizing design competence in a similar way to how product design has been used for superficial styling purposes, at least when discussing the contribution of design. I argue that a view of service as value creation, such as in Service Logic, acknowledging value in use and the central role of users is beneficial for articulating designs contributions. I will therefor position my research in the emerging research stream of Design for Service (Kimbell, 2011a; Kimbell & Seidel, 2008; Meroni & Sangiorgi, 2011; Sangiorgi, 2012; Wetter-Edman *et al.*, 2013).

Design for Service draws on central perspectives, tools and methods from human-centered design, and on recent developments in perspectives and theories on service, value creation and resource integration in service research. Positioning the work as Design for Service makes it interdisciplinary by definition. Since Design for Service (not design *of* service, or service *design*) is an emergent concept, a key objective in the present work is to refine the framework. This is done by means of additional theoretical development and by exploring the usefulness of Design for Service as a framework in this thesis through a field study of design practice.

Introducing Design for Service

From a product or industrial design perspective the first and foremost implication of adopting *Design for Service*[12] is that designers need to accept "the fundamental inability of design to completely plan and regulate services, while instead considering its capacity to potentially create the right conditions for certain forms of interactions and relationships to happen."(Meroni & Sangiorgi, 2011, p. 10). This position is grounded in the understanding of service(s) as relational, interactional and created in the moment of consumption, and thus neither a designer nor a design process can control and define what the outcome will be. Sangiorgi (2012) presented a model relating a developing view of services from

12. This work draws extensively but not exclusively on the writings developed in the collaborative work by design and service research scholars published in Wetter-Edman *et al*. (2013); Wetter-Edman *et al*, (2014) in addition to writings developed in Wetter-Edman, (2011).

being peripheral activities to being a higher order concept and hence to an understanding of value from being embedded to being seen as value in context (see fig. 1-1). Here Design for Services is positioned as being a representative of service as a higher order concept and embracing the service logic understanding of value. As Segelström (2013) notes, the understanding of design is given and not questioned in this model.
In contrast, Kimbell suggests "*designing for service*, rather than service

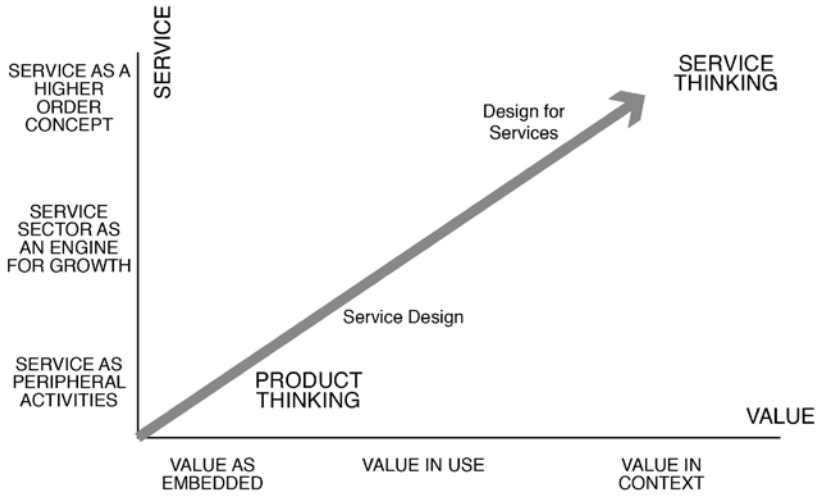


Figure 1-1 Service and value continuum, model adapted from Sangiorgi (2012 p. 98)

design, makes clear that the purpose of the designers' enquiry is to create and develop proposals for new kinds of value relation within a sociomaterial world" (Kimbell, 2011a, p. 49 italics in original). She further elaborates on understanding design as a problem solving activity or as enquiry, and understanding service either according to IHIP or through a Service Logic lens. The definition of designing for service relies on understanding design as enquiry and service as the fundamental unit of exchange and value creation. Thus the distinction between goods and services is made redundant, and the act of design is made explicit.

This turn from the disciplinary thinking connoted in service design implies that Design for Service is a mindset that brings forward competence rooted in creative and artistic traditions, building on a multiplicity of design traditions. In addition, Design for Service makes use of concepts from the service logic literature on value (co-)creation and resource integration (Wetter-Edman *et al.*, 2014). The applicability of the Design for Service framework is explored through a field study described below.

The field study context

The field study is based on a 10 month (Dec 2009 - Oct 2010) study of collaboration between a design firm, *AllDesign*[13], and their client, *The Company*, an industrial company producing dairy farming supplies and their service organization. The focus of the collaboration was setting up and carrying out a service design pilot workshop. The particular focus for the workshop was to gain deeper understanding about one group of the industrial firm's customers, farmers with automatic milking systems, and what they perceive as value creating activities in relation to the services offered by The Company. In addition there were hopes of finding new potential service offerings, however the explicit focus was on deeper understanding rather than innovation per se.

I followed this collaboration through observations, interviews and recordings of meetings (both video and audio). The ten months covered the initial project discussions, the service design pilot workshop,

13. All names are pseudonyms.

subsequent internal meetings, and the final presentation for the client. In addition, between January and December 2009 I met with both The Company and AllDesign prior to the project, and annually during 2011-2013 for follow up interviews and meetings

The material from the case and specifically the video films from the workshop and following design meetings were analyzed with an open question; What is going on when designers act as intermediaries and involve users with the purpose of doing service design?

When I looked through the films from the workshop and specifically from the design analysis meeting, what stood out was the attention the designers paid to the users' stories and accounts of experiences and situations. I had expected the designers to work in more visual modes throughout the whole process. Instead, the participant designers analyzed the workshop almost exclusively by references to the users' stories. They recaptured the accounts and re-fabricated them in a testing matter. The designers also chose to deliver the outcome of the user workshop to the company as two stories or two scenarios. The first presented the existing situation and the second presented a future where ideas and changes had been implemented. This surprised me! There were visuals that supported the written and spoken words, but the main outcome of the design project was these two scenarios. They differed in character in that the first one consisted of re-constructions of the users' accounts of experiences and how the company's services impacted their lives, while the second addressed the matters of concerns brought forward in the first scenario by proposing new value creating possibilities and presented situations where these were implemented. Thus the focus of my continued inquiry became to explore if and in what ways the stories were used as design material.

Scope of the thesis and research interests

Throughout the thesis project I have adopted a pragmatist pattern of inquiry to guide my research. According to Dewey (1938) this implies to move explicitly from an open but doubtful situation, always starting in lived experience, towards a situation that can be considered as settled and resolved. The inquiry moves explicitly between the realm of

meaning - the field and the realm of facts - theory and concepts.

The initial inquiry described in the preface, is in my research the doubtful situation, developed through my own experience as designer, meeting with other competences and their approaches to user involvement. What follows, beginning in this introduction and continued throughout the thesis, is the further development of the inquiry and its subject matter.

Design for Service is a framework that conceptually captures both a service logic and a designerly approach to innovation. There are few empirical studies that explore the usefulness for practice. The overall aim of this thesis is to further develop the connections between design and service logic through continued development of the Design for Service framework.

I take specific interest in the question of designers' contribution through the involvement of users in service design and innovation. This is done with the purpose of developing the framework by the means of an inquiry into the field. With the purpose of summarizing this inquiry on both a conceptual and empirical level the following two research interests are initially articulated:

How can design's contribution (in relation to involvement of users) be productively framed through Design for Service?

How can designers contribution be understood when designers act as intermediaries in between a firm and users with the purpose of doing service design?

Structure of the thesis

In this introduction I have provided a condensed contextual and theoretical background to the dissertation. Subsequent chapters shift between the field of practice and theoretical perspectives, moving the inquiry onward. In line with Deweyan spirit and with the purpose to make the theory relevant for the field observations and vice versa, described below additionally illustrated in fig. 1-2.

Following this introduction:

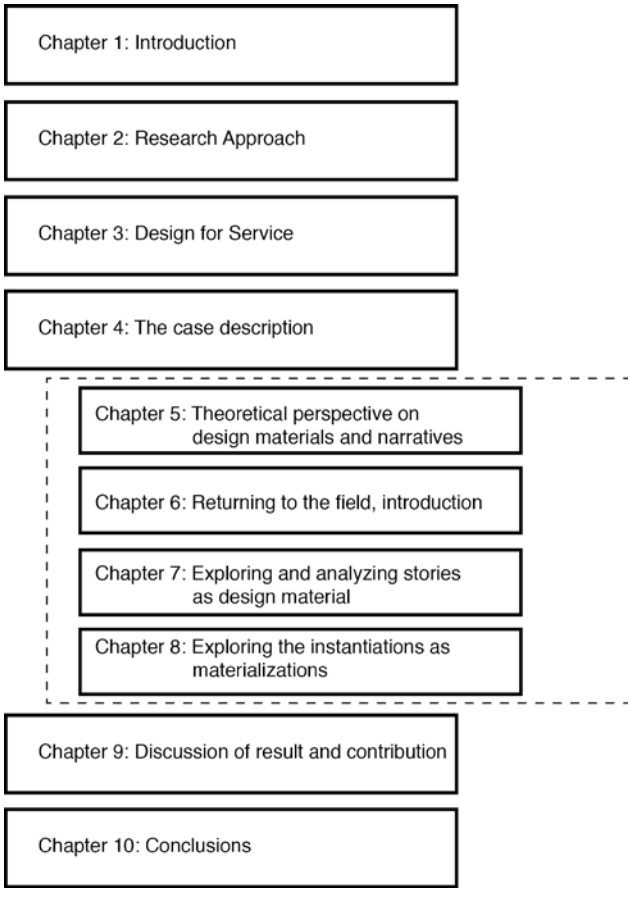


Figure 1-2 Structure of the thesis

In Chapter 2 I take a pragmatist position and describe my research process in line with Dewey's Theory of Inquiry. The data collection and methods are presented and my position in the research process is identified.

In Chapter 3 I present directions in Service Design research and relevant aspects of Service Logic. Then I expand Design for Service as my framework, problematize relations and rationales of users' involvement in design and service innovation, and discuss the designer's role as an

intermediary between user and firm. This chapter summarizes and further develops thoughts initially presented in my licentiate thesis. The chapter ends with a developed inquiry.

Chapter 4 provides an overview and description of the studied case, *The service design pilot*. My initial findings from the study are discussed - that stories are used instead of visualizations and seemingly as design material. These findings elaborate and deepen the inquiry.

The following four chapters 5-8 are constructed as an embedded inquiry. In these chapters the inquiry zooms in on the specific issues raised by the findings in the analyses of the service design pilot project.

I return to theoretical concepts in Chapter 5 and discusses in depth the central concepts in relation to the case: stories as design materials, materialization of talk as design practice and how they can be understood through narrative theory. Chapter 6-8 represents a return to the field and experimentation with the relevance of the above concepts.

Chapter 6 provides a background and vocabulary to the following analysis in Chapters 7 and 8 that can be described as taking a micro perspective on the field material focusing the analysis on the outcomes from the workshop and pilot project.

Chapter 7 explores the narrative dimensions of the designers' work. The designers' transformation of the user information through emplotment is discussed as well as *how* this information is brought back to the company.

In Chapter 8, the focus is on *what* the designers paid attention to in the workshop through materialization and as such bring with them in the further design work.

In chapter 9 I summarize and discuss the results and contributions from the conceptual and empirical studies respectively and in relation to each other and existing literature. I propose designers' contribution in Design for Service to be that they interpret and reformulate existing service systems and *propose* new ones based on the users' experiences. I conclude this chapter by reflecting on implications for practice and future research.

Finally in Chapter 10 I further develop the Design for Service framework, through elaboration of the two of the propositions, discuss design as a driver of change and reflect upon the research process.

2

Research Approach and Method

A pragmatist stance

My educational background is as an industrial designer for five years on an artistic foundation from two years of artistic training in art schools in Paris and Stockholm. In contrast, my high school exam was based in natural sciences.

In the masters program in industrial design training at HDK (School of Design and Crafts, Gothenburg University) in the mid 1990's great emphasis was put on understanding of materiality and its transformation through development of artistic skills, or knowledge in action and practice, as Schön would say. I have lived through numerous situations similar to the situations between teacher and student described in his classic *The reflective practitioner.* However, it was not until I began my doctorate studies that I really started to reflect upon what this understanding of knowledge means. That it is different became apparent in my early work experiences as a designer and design manager practitioner where, for example, I found it very difficult to articulate the foundations for my decisions.[14] My background as a designer makes my position somewhat entangled with the phenomenon I set out to study: designer's practice and the contribution thereof. The foundation of my position in how to approach the understanding and construction of knowledge is

14. Described more profoundly in my licentiate thesis Wetter-Edman (2011).

deeply connected with my previous experiences.

Based in my experience I find it impossible to separate body and mind in regards to knowledge. This is one of the so-called Cartesian dualisms. According to (Bernstein, 2010, p.9) the classic pragmatists were "critical of the traditional philosophical quest for absolute certainty and what Dewey labeled the 'spectator theory of knowledge.' They emphasized *the* role of *know-how, social practices, and human agency*." (Italics in original). The deep interest and belief of the interaction of body and mind interacting with the surrounding world for shaping conduct and beliefs is why pragmatism is seen as praxis and an action-oriented philosophy. In effect, action is inherent in the concept. Bernstein (2010) cites James in the prologue of the *Pragmatic turn*: "The term 'pragmatism' is derived from the Greek word πραγμα[15], meaning action, from which our words 'practice' and 'practical' come". More recently Sennet (2008) discusses in depth in his book *The Craftsman*, how hand and head act together in the development of craftsmanship and architectural practices.

Pragmatism has roots in late 19th century American thinking. The classic pragmatists are considered to be the American thinkers Charles Sanders Peirce (1839–1914), William James (1842–1910), John Dewey (1859–1952) and George Herbert Mead (1863-1931). They shared the anti-Cartesian approach to knowledge and challenged (although with different emphasis) the contemporary understanding of 'truth' (Hookway, 2013).

> In his [Dewey's] view, truth is neither discovered, as the absolutists claimed, nor invented, as the relativist claimed. It is instead *constructed* as a byproduct of the process of solving problems. This conception of truth is basic to the philosophical tradition called Pragmatism with which Dewey is often identified. (Hickman, Neubert, & Reich, 2009, p. 14).

The process of inquiry is central in pragmatism, more so than finding an absolute answer. For example, Pierce sees "inquiry as a self-corrective process which has no absolute beginning or end points and in which any claim is subject to further rational criticism, although we cannot question all claims at once." (Bernstein, 1971, p. 175). Anna Rylander (2012)

15. Translates letter by letter to 'pragma'.

writes that the core of pragmatist thought is that our theories must be linked to experiences of practice. The pragmatists were deeply concerned with the relevance of science and philosophy for the society we live in. Since the time of these early thinkers pragmatism has both been somewhat forgotten, then re-discovered and developed in various streams of thinking (Bernstein, 2010; Hickman *et al.*, 2009).

Key for understanding and knowledge in Dewey's philosophy is the understanding of experience. According to Dewey experience is embodied, and the way through which we learn, together with an intellectual questioning of what this experience means. "In his [Dewey's] view, for example, space and time are not forms that are brought *to* experience, but conceptions that are constructed *on the basis* of experience." (Hickman, 1998, p. 169). Further Dewey distinguishes between two kinds of experience; the first kind is minimally reflected upon, it is felt and he calls it 'direct', the other kind is reflected upon and called 'known' or 'indirect' (Hildebrand, 2008). Our typical experience argues Hildebrand, emerges through accumulations of increasingly organized interactions. Human experience is according to Dewey, he continues "what it is because it already consists of shared meanings, produced with language in acts of social participation." (Hildebrand, 2008, p 39).

In regards to my research approach and methods in this dissertation I will rely foremost on Dewey's theory of inquiry (Dewey, 1938). I will also include inspiration from more recent developments and methods.

Narrative as a mode of knowing

In line with the pragmatist position the *narrative mode of knowing* opposes the sharp distinction between true/false and a direct and single interpretation of reality as the only way to knowledge. A narrative mode of knowing allows for multiple interpretations and also for multiple plots to co-exist. Bruner argues that in contrast to paradigmatic knowing that can be ruled true or false, narrative knowing "can only achieve verisimilitude" (Bruner, 1991, p.4), their acceptability is governed by "narrative necessity" (Bruner, 1991, p.4) rather than by empirical verification and logical requiredness. This echoes Dewey's position that 'truth' is constructed and judged by its relevance and applicability to the situation. The kinship between narrative mode of knowing and pragmatism is strong and has been developed to some extent in narrative analyses

(Czarniawska, 2009) and more explicitly in narrative inquiry (Clandinin & Rosiek, 2007; Connelly & Clandinin, 1990).

Dewey's Logic – a theory of inquiry

Inquiry is for Dewey not a question of doubt but a fundamental property of everyday life. We continuously meet situations that are difficult to understand, that are unsettled, that we attempt to make sense of in different ways. Talisse (2002) exemplifies the pattern of inquiry through a sequence of how to make sense of a ball that unexpectedly rolls out into the road when driving a car. The inquiry is conducted by referring to previous experiences of similar events and searching known concepts.

> Inquiry is the controlled or directed transformation of an indeterminate situation into one that is so determinate in its constituent distinctions and relations as to convert the elements of the original situation into a unified whole. (Dewey, 1938, pp. 104-105).

Thus the purpose of inquiry is to move from a situation that is doubtful, potentially with parts that do not seem to fit together, to a new situation where the different parts form a coherent whole. Important in understanding this is what Dewey refers to as 'situation':

> What is designated by the word "situation" is not a single object or event or set of objects and events. For we never experience nor from judgments about objects and events in isolation, but only in connection with a contextual whole. This latter is what is called a 'situation'. (Dewey, 1938, p. 66)

Although the inquiry might start with a single object that attracts the initial attention, "*an* object or event is always a special part, phase or aspect, of an environing experienced world – a situation." (Dewey, 1938, p. 67). In addition the *object* per se is always an outcome of a previous inquiry; when making an inquiry Dewey argues objects are means for understanding something else. During the inquiry the more general term of subject-matter is used, and objects could be said to be the *objectives* of the inquiry.

The directed or controlled transformation of an indeterminate

situation into a determinately unified one is achieved by means of two kinds of operations, according to Dewey. One deals with ideational or conceptual subject matter, "this subject-matter stands for possible ways and ends of resolution."(Dewey, 1938, p. 177). This implies that the process and techniques of inquiry will be intimately coupled and develop together with the subject matter of the inquiry.

Ideation is an intellectual operation for Dewey; this operation concerns studies in literature and theories. The other operation "is made up of activities involving the techniques and organs of observation." (1938, p. 117). This operation concerns the empirical part of the inquiry. An inquiry thus moves between these two operations and has a temporal dimension undergoing transformation. This implies that the subject matter of the inquiry necessarily undergoes a change during this process.

Pattern of Inquiry

Dewey (1938) organizes this transformation in what he calls a Pattern of Inquiry, connecting these two operations in six relations:

1. *The indeterminate situation* is characterized by being uncertain and unsettled. The situation is ambiguous, confused and full of conflicting tendencies, and this renders us doubtful as inquirers. The situation is open to inquiry in a way that its parts "do not hang together".(p. 107).
2. *Institution of a Problem* means that the situation becomes problematic in the very process of being seen and articulated as problematic and thus subjected to inquiry. "To see that a situation requires inquiry is the initial step to inquiry." (p. 107). To find out what the problems are is to be well along the inquiry, however the problem need 'grow out of an actual situation'.
3. *The Determination of a Problem-Solution.* A completely indeterminate situation cannot be transformed into a productive inquiry, thus the constituents and limitations need to be set. This is done through observation and through the presentation of a possible idea. "Observation of facts and suggested meanings or ideas arise and develop in correspondence with each other" (p. 109), the idea marks a possibility.
4. *Reasoning* implies developing the meaning-content of ideas in relation to one another. This process operates with symbols , and implies

that the meanings and relations of symbols[16] in relation to other symbols and meanings in a system are explored, together with the consequences thereof. Through development of intermediary meanings, a meaning that is more relevant than the original idea (concept) is suggested.

5. *The Operational character of Facts-meanings.* For exploring the relevance of the idea, the inquiry needs to interact with the actual situation. "Ideas are operational in that they instigate and direct further operations of observation; they are proposals and plans for acting upon existing conditions to bring new facts to light and to organize all the selected facts into a coherent whole." (p. 114). This organization can be achieved only if/as they *interact* with one another. A new hypothesis (idea) is formed and so forth until a unified order is achieved, meanwhile 'provisional facts' are tried out. "The carrying out of inquiry requires that the facts be taken as representative and not just as *pre*-sented. This demand is met by formulating them in propositions – that is, by means of symbols." (p. 114). This part of the pattern of inquiry is often referred to as the experiment.
6. *Judgement* – Dewey develops the construction of judgment at length. In short, he suggests, "judgement may be identified as the settled outcome of inquiry" (p. 121). If the indeterminate situation is characterized by 'not hanging together', the determinate situation is characterized by being closed, a unified situation.

Dewey further makes a distinction between a common sense and scientific inquiry, which is a question of the subject matter more than the procedures. Common sense forms a practical system whereas scientific inquiry forms an intellectual system. In scientific inquiry "meanings are related to one another on the ground of their character *as* meanings." (p. 115).

Dewey himself thought about inquiry as instrumental, "to see what the whole point of experimentation is, is to see whether we can make things better by finding out how experienced situations (which of course

16. Dewey uses the word 'symbol' as "a synonym for a word as a word, that is, as a meaning carried by language in a system" (Dewey, 1938, p. 51) As an 'artificial sign' to differ from symbol as a ' natural sign'.

include ourselves as components) can be reconstructed." (Hickman, 1998, p. 168). Further, Dewey was convinced that the tools for inquiry were not given before hand. Instead, an inquiry is a directed and reflective activity where "existing tools and materials are brought together in novel and creative arrangements in order to produce something new" (Hickman, 1998). Accordingly, how this inquiry will develop and what outcome it will render is dependent upon the techniques used.

The theory of inquiry as applied research method

The relevance for a pragmatist approach in and for academic design research has been discussed and even promoted (Melles, 2008a, 2008b; Rylander, 2012; Telier *et al*., 2011). A recent dissertation treating design's role in new product development teams takes Dewey's logic of inquiry as a fundamental research process (Stompff, 2012) and Östman's dissertation develops a pragmatist theory of design (Östman, 2005). However, Rylander (2012) remarks in her overview of design and pragmatism that in the contemporary design research, applications of pragmatist perspectives, such as Pierce's concept of abductive reasoning, is foremost through secondary sources.

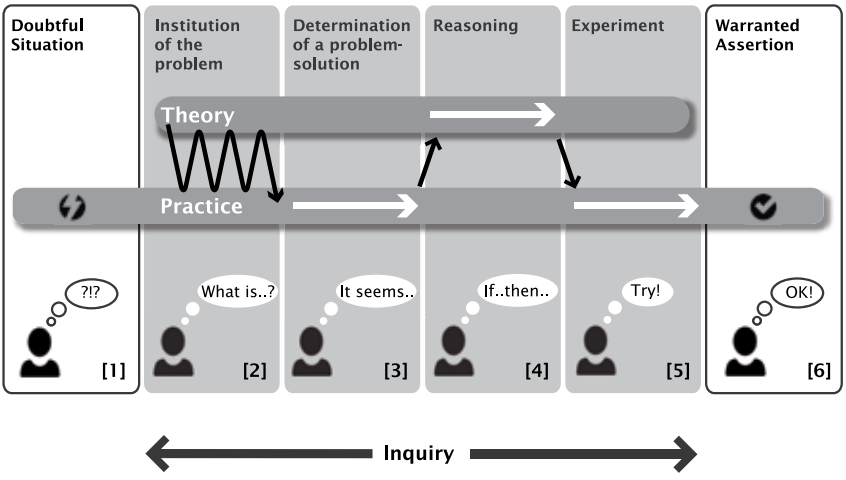


Figure 2-1 Structure of Dewey's pattern of inquiry according to Stompff 2012, p 51, published with permission form the author.

The direct use of Dewey's theory of inquiry as research method is not evident, however. It is, as Stompff (2012) notes, not a description of a method but a philosophical treatise emphasizing the importance of practical application. Stompff conducts a practice based inquiry in a 'true pragmatic' spirit by translating the structure of inquiry into six steps (see fig. 2-1). He describes visually (and in my opinion very clearly) the basic premises of Deweyan inquiry translated into a process. This description is linear and does not (of course) describe the even more complicated and iterative relations between theory and practice. Below I will describe how these steps played out in my research project. In my inquiry I followed a process allowing the subject-matter to develop and evolve throughout the study.

Stompff (2012, p.47) describes three consequences for doing design research in a pragmatist tradition:

1. For a study in a pragmatist tradition, a researcher has to interact with his subject -matter. Empirical observations are important for a pragmatist to understand the situation at hand, however, that is not sufficient. Experiments are required, guided by propositions made on the base of the insights. Only by means of experiments the insights are validated.

2. Pragmatists adopt a 'Darwinian' approach on theory (Talisse 2002): the theory which has most value in practice is best. Thus, a basic attitude for a researcher is to compare theories. Also, pragmatists consider that even the most 'certain' of our concepts of the world will eventually need elaboration (fallibility), because we encounter new and unexpected situations. Dewey coined the notion of 'warranted assertions' i.e., justified, defensible claims, that concern the 'best available' knowledge rather than 'absolute truth' (Dewey 1938; Putnam 2001; Logister 2005).

3. Pragmatism overthrows the classic duality of theory and practice. Theory is considered instrumental to practice, as plans of action which borrow their meaning and value from their real world consequences. Similarly, practice is instrumental for theory to continuously develop new and better habits, tools, knowledge, goals and so on (Hickman 1996). For researchers, there is no primacy of theory over practice (as for rationalism), or practice over theory (as for constructivism)..

One development of this approach into a research method in social sciences, more specifically in organization and management research, is the mystery approach. In the mystery approach three fundamental moves are argued: 1) a strong focus on data *to* an interest in the constructing of empirical material, 2) a view of theory and data as separate *to* an acknowledgement of the 'internal' relationship between them; the theory impregnation of all data, and 3) a strong emphasis on the procedures and techniques for 'collecting ' and analyzing data to a greater interest in researcher reflectivity in dealing with the field material; that is, how to interpret an reinterpret the material (Alvesson & Kärreman, 2007).

Stompff emphasizes the active involvement of the research in experiments, and the pragmatist understanding truth through the concept of 'warranted assertability'. Alvesson and Kärreman (2007) bring forward the role of the researcher in construction of the empirical material, the importance of the researchers and their positions in the interpretation of the empirical material and reflexivity, meaning the ability to critically discuss the result from several theoretical positions. Both approaches highlight the interplay of theory and data, both in understanding and inquiring into theory and data.

Similarly, the use of problematizing and identification of assumptions as guiding principles for questioning and contribution to research instead of focusing on gap spotting, as proposed by Alvesson and Sandberg (2011, 2013), shares the basic views on inquiry. This implies an open process, as the need to continuously question and reframe the inquiry and understanding the contribution in terms of relevance and seeing things in a new light.

Based in these interpretations of pragmatist inquiry and integration of narrative knowledge perspective, below I develop my position as researcher in the project. I describe how this research project has been constructed, the methods used and how they have been used in the field study. First, however, a note on how to assess research quality within a pragmatist tradition.

Criteria for assessing research quality

Attending to the metaphor of the research process as an inquiry implies that evaluating the process should follow similar criteria. To formulate the problem itself is part of the solution, and the aim is to "arrange subject matters in settled forms" (Hickman, 1998, p. 176). This means to arrange the subject matters in a way that they can be used in further inquiries. According to pragmatism, the truth should be judged according to the usefulness, the practical applicability of the outcome, instead of the correlation between the subjective idea and the objective fact (Alvesson & Sköldberg, 2008).

Alvesson and Sköldberg (2008) discuss reflective and reflexive research as a means for rigor in the research process. By reflective they refer to a conscious and deliberate research process where the researcher reflects upon and selects methods and approaches that are appropriate for the specific research at hand. Reflexivity is characterized by two fundamental elements, interpretation and reflection. Alvesson and Sköldberg argue that:

> ...field research distinguished by reflection has an inherent skepticism towards what at first might appear as unproblematic reflections of how reality works, at the same time as one believes that the study of well-selected and carefully thought through segments of this reality might give important support to knowledge creation that opens rather than closes, that gives possibilities to understanding rather than states 'truths'. (2008, p. 20)

Menand suggests that the classical pragmatists "believed that since ideas are provisional responses to particular and unreproducible circumstances, their survival depends not on their immutability but on their adaptability." (Menand, 2002, p. xi-xii). Thus, again it can be emphasized the truth and quality of the research outcome always need to be judged in the situation and through their usefulness.

Generalization or transferability

This is a qualitative study aiming for constructing relevant knowledge on design's contribution for involving users as being an intermediary

between the user and the organization. As mentioned above, a pragmatist reading has been applied, which is open for multiple interpretations and focuses on understanding and explaining the phenomenon and finding patterns rather than on generalization and summary of data (Alvesson & Sköldberg, 2008). This also implies that the solution might be of quite a local character.

Reliability is achieved through making the research process transparent and paying attention to theoretical stances for the interpretation (Silverman, 2006), which the researcher accounts for through as thick descriptions as the paper format allows. In the present work the above positioning serves as a background for the coming interpretations that are presented in the following chapters.

I will return to these questions in the final chapter of this dissertation and discuss the relevance and the validity and quality of this work in relation to issues raised in this section.

The construction of the research project and its activities

In my research process the doubtful situation occurred in my previous practice as a designer and design manager, as I described in the preface. These experiences formed the bases for what would be the initial set up of the larger PhD research project and application that funded the case project. The background of the empirical case, the set up of the design project and how it unfolded is described in Chapter 4. The inquiry has moved from being based in ethnographically inspired methods on the field, to analyzing specific outcomes of the designers work. The subject-matter of the inquiry shifting through the inquiry process, and my role of constructing the field material and the position taken in the interpretation has shifted. In alignment with pragmatist inquiry I have developed and used tools and methods that I have judged fit for the needs of the inquiry at hand.

Data collection

The field study started with an ethnographically inspired approach where I set out to study the two participating companies, the industrial organization [The Company] and the design firm [AllDesign] from January 2009 till October 2010. Additional interviews were conducted during 2012. All names of participants and companies have been changed to comply with agreements of non-disclosure. Similarly images that can be easily identified as parts of a company's brand communication have been re-presented by the author through sketches. Additionally all transcriptions and text on represented material have been translated by the author, and language checked.

In the study of the industrial organization this meant that I interviewed[17] people involved in service development, I observed meetings with the service and original parts division. I attended an internal two-day conference for the launch of the new service concept, travelled with my two main informants to a regional one day meeting on the topic of service innovation and I travelled with a service technician with the purpose of understanding what the service actually was about. I observed decision-making meetings and discussion on service innovation, and took field notes during and after the events. In addition I interviewed 14 people who were involved in the development of the new service concept that was the subject of the launch meeting.

In regards to AllDesign, I have had an ongoing conversation with design strategist Anna regarding the development of service design both in general and in the specific firm. In 2009 I interviewed 4 designers at AllDesign, and 3 from two other firms on the topic of service design and user involvement. I had continuous conversations with the involved designers in the service design pilot with The Company, and interviewed all three in close relation to the workshop, and Anna and Victor about a year afterwards.

I also had the opportunity to follow another AllDesigns collaboration on service design with a travel company. This project lasted April-September 2010, and included a two-day workshop with employees with

17. Interviews have been prepared with a semi-structured interview guide inspired by Kvale & Torhell, (1997) and lasted between 45 min-1h30 min.

the purpose of mapping the customer journey. The workshop was audio and video recorded; I also documented the event through photos and took notes. In addition I attended the following meetings with the travel agency and also the final delivery meeting.

During the second round in the field during 2011-2012, I conducted additional interviews, set up discussions and workshops with the aim of exploring 1) the notion of design in service design and 2) the relation between design and service logic. A representation of when the data has been collected can be seen in fig. 2-2, and summary of the collected data can be seen in Table 1.

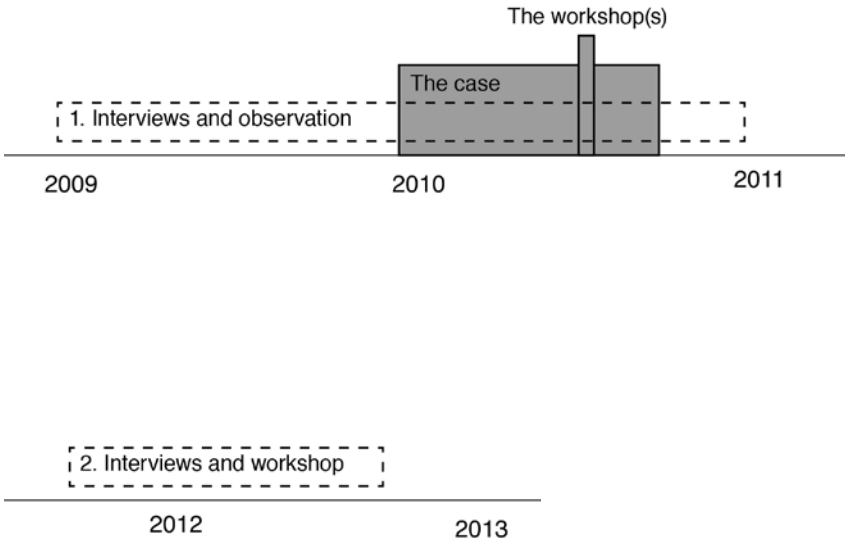


Figure 2-2 Data collection over time

Activity		Date collected	# people	Total length/avg duration	Who/Position etc.	# occasion	Type of material collected
Interviews	**Industrial organisation**	April-May 2009, Feb 2011 and Dec 2012	14	26 hrs/45 min	People involved in the development of the Service Concept. Belonging in various parts of the company, and placed in different countries throughout Europé. 2 by phone the rest in person at the company headquarters	18	Recordings, notes
	Travel agency	April - September 2010	2	4hrs/45 min	The responsible person for service design, and the manager for business development	5	Recordings
	Professional (service) designers	May 2009-October 2011, Feb 2011 and Dec 2012	14	26 hrs/1 hr	Veryday, Transformator, Reload, IDEO	22	Recordings
Particpant observations	**Industrial organisation**	Feb-August 2009		35 hrs/ 4 hrs	6-10 Service Managers on Regional basis, global and european meetings	6	presentation slides and fieldnotes
	Ind org and design meetings	December 2009-Oct 2010		20,5 hrs/2,5 hrs	Designers and company representatives involved in the carrying through of the workshop before and after. Presentation: From the ind org: 6 Service managers on scandinavian and swedish markets, the portfolio manager, the two persons involved in the workshop.	10	Notes, slide presentations, protocols, photos
	Travel agency and design meetings	April-September 2010		8,5 hrs/2 hrs	With the projects steering group and two designers	4	Notes, slides, photos
	Workshop1: Pilot study	June 11, 2010	12	ca 8 hrs	7 users, 2 company representatives 3 designers	1	A/V recorded, fieldnotes, photoes
	Workshop2: Mapping Customer journey	June 8-9, 2010	10	9 hrs	Workshop with employees from the nordic region , 2 parallell groups and concluding joint session.	1	A/V recorded, fieldnotes
	Internal design analyse meeting	June 30, 2010		6 hrs	The two designers work together in analysing the workshop outcomes	1	A/V recorded, photos, fieldnotes
Continous conversations	**Industrial organisation**		2	15	Portfolio manager and contact person	10	Some recorded,notes
	Professional (service) designers	Feb 2009-Oct 2012	2		Strategic designer at Veryday, Senior designer at IDEO		
Other material	**Industrial organisation**	Jan- Oct 2010			Between the designers and contact persons at the industrial organisation regarding preparations for workshop and final presentation.		Mail, slide presentation, protocols, notes and comments. Broshures, folders, digital material, physical packaging of service support material
	Travel agency	April - Oct 2010			Access to webbased project platform, project descriptison etc.		mail, notes, protocols
Other activities	**Workshop**	Nov, 2010	18	3	Service design pracitioners		
	Particpant observation	20 May, 2011	4	3	Seminar and roundtable discussion with John Stoddard, Ideo and 3 Swedish design practitioners from Veryday, Cliff design and Lots design.		
	Participation	2 oct, 2012	25	3	Practitioners from IKEA, Telia Sonera, Volvo Trucks, Ericsson and service design agencies Transformator, Doberman, Veryday and Design Thinkers. Together with researchers and design advocates.		

Table 1 Summary of collected data material

Selection of data for analyses

All these events played a part in my understanding of the situation as problematic and also in the determination of the inquiry to pursue in this thesis. However, as can be seen in Table 1, this broad and qualitative approach has rendered rich and dense material. I have chosen to explicitly focus my analysis on the collaboration between AllDesign and The Company and the Service Design Pilot project and workshop that was conducted in June of 2010.[18] The following presentation will therefore focus soley on the data material from this collaboration that I refer to as the studied case.

When the collaborative process of the Service Design pilot started between The Company and AllDesign new material was collected. This consisted of research notes and audio recordings from meetings, e-mail conversations and documentation such as meeting notes, slide presentations and reflections in informal talk among the participants on how the work evolved in the planning process.

The collaborative workshop with users, considered the main event of the study, was documented by two video cameras. Capturing the sessions with all participants from two angles, and the group sessions with one camera each, I moved the cameras between the two groups. The decision to video-record the workshop was made first due to physical limitations, it was not possible for me to be in all places at once, and second, that the activities were so complex that it would be very difficult to retain what actually happened in real time. In addition, I did not really know what would be the explicit focus of my further inquiry. I took a many photos during the day. Later on in the process when I decided to look closer on the outcomes from the workshop, I gained access to make copies of all the physical material from the workshop. This material also included hand-written meeting notes and reflections from AllDesign taken from the first meeting with The Company onwards.

After the workshop, the first internal meeting for analysis was documented with video, and the following day a meeting with the industrial firms representative was audio recorded. I also took part in these two meetings. After these meetings conversations were held mainly through

18. How this project came about and the workshop was carried through is described in detail Chapter 4: The case – A Service Design Pilot.

e-mail, and my documentation consisted of iterations of presentations, mail conversations, analyses in notes, protocols and mind maps. The presentation meeting between the organizations for delivery of the outcome was audio recorded, the slide presentation was preserved, and it was observed in person with notes taken. After the presentation follow up interviews were made with two informants at The Company and with Anna and Victor at AllDesign.

In addition, throughout the research process I have kept a research diary reflecting on events in the research project, analyses, readings and other activities that were relevant to the research project. Such activities included conferences, doctoral courses, seminars and personal meetings with practitioners and other researchers. To date this has generated approximately 300 pages of notes, singled spaced.

The case analysis

The specific case, the collaboration between The Company and AllDesign was set up for understanding more about how designers involve users and their knowledge and providing this information to their client company. Describing and interpreting this case, including the workshop, involved a reading across all the different types of collected material, and recollecting the events from my observations. However, for the more explicit question of how the designers involved the users and their knowledge my attention was set to the activities that surrounded the service design workshop and the designers' further work.

The main focus of my attention was two data sets 1) the video films from the workshop and 2) the video from the internal analysis meeting afterwards. I did not start making the focused analysis until a little more than year after the workshop was conducted, and the analysis was spread out over approximately a year, interlaced with a course covering narrative research among other things.

The preferred approach to a dense material such as video recordings is in steps or different readings. Heath, Hindmarsh, and Luff (2010) suggest doing it in stages:

1. *Preliminary review* with the aim to catalogue the data corpus. Make simple descriptions and classifications, notes on actions and to mark out relation to other material.
2. *Substantive review* is more focused and arises in the light of initial analyses of data. The purpose is to extract fragments. This stage also includes sequencing, and more detailed descriptions of what is taking place.
3. *Analytic search* of the data corpus is a review of related data sets and selection of 'candidate clips'.

I attempted to be as open as possible and the rich audio video material easily became overwhelming. I started with the first stage described above to orient myself in the video recordings, looking through the video material in an exploratory way. I coded tentatively and transcribed partly what I reacted on as interesting or surprising (Banks, 2007; Charmaz, 2006).

I used software called Transana[19] for transcribing and to mark different 'snippets' of the material as interesting. In Transana there is always a relation between the transcribed text and the sequence of the audio/video recording. Coding in Transana is related to techniques described in grounded theory, where initial codes are related and form categories and themes (Charmaz, 2006; Glaser & Strauss, 1967). Heath *et al*. (2010) suggests that selection of fragments could be focused on a range of interests and concerns, or influenced by overall aims and objectives of project or even emerge from initial review of materials, even from accompanying fieldwork where particular activities or events will have been seen to recur or just happen to look interesting and worthy of further attention.

When I started to analyze these videos I did not really know how far I would go in the analysis, but followed the advice from Heath and colleagues. I focused in the first stage on keeping an open mind while paying extra attention to ways in which the designers take in and take on the perspectives of users/or 'the other'.

19. Transana is software developed for qualitative analyses of videodata, see Fassnacht, C., & Woods, D. (2005) "Transana v2. 0x." Computer software. Available from http:// www. transana. org

1. In the first data set regarding the workshops with users the interaction between all parts is of importance and the broad question is: What is going on here: *What is going on in the relation-actions between the users/others and designers?*
2. In the second data set, the videos of the internal work, the main question remains: What is going on here: *What is going on with the 'material' that was collected in the previous workshop?*

I looked at the videos and transcribed selected parts, mainly focusing on what was said, but also at some instances on the interaction between actors. I coded intuitively in accordance with the software and advice in video analyzing methods (Banks, 2007). However, after looking through all the videos and partially transcribing 2/3 of them, I was startled by the attention paid to stories and accounts both in the workshop and in the internal design meeting. I decided to look through the videos again with an increased focus on the stories. I noted in my research diary:

> They tell stories, the workshop is set up as a story-probing event, together they create yet another story – a narrative. In the internal workshop they keep telling stories, retelling them or new versions of them, or new ones inspired of the previous ones.

I decided here to not pursue a detailed analysis of the videos and actions they capture per se, but instead focus on how the use of stories in this case of service design could be understood better. How I returned to the video material and the explicit analysis of the stories will be presented in the respective studies.

There are of course other things that stand-out as interesting, but the way the stories are used is the one that from my perspective diverges most from what I expected and thus also both expands and limits the subject matter of this inquiry. The influence of the methods course I was taking simultaneously that included narrative research cannot be downplayed, however, having a narrative mindset allowed me to see something that was not anticipated.

The overall case provided the situation in which my inquiry was embedded, with many ambiguous and interesting events. More explicitly, my analysis of the workshop and the following internal meeting were

key in 'determining the problem-solution'. My direct participation and my previous design practice experience may have played a part in that it covered up what happened in the workshop when I was in the situation. I was more focused on how the designers and the company perceived the situation and the outcome of the collaboration per se than what they actually did. When I re-entered the situations through the videos, my assumptions about what they should be doing, using the material at hand and making visual re-presentations, clashed with what I saw.

Return to the field and literature

After this initial analysis I returned to the literature for exploring concepts that could be effective for understanding how stories could be used as design material. I then returned to the field material with concepts of materialization and narrative theory (developed in Chapter 5). Experimentation was conducted throughout the inquiry, although this second analysis of the field material did explicitly explore the relations between the field and theory I have used these different theories and methods as instruments for exploring what the use of stories in this case of service design practice means.

I used narrative theory for analyzing plot and narrative dimensions, mapped the relations between the accounts told in the workshop and what was presented in the final presentation and used thematic analyses for shedding further light on what the designers captured in the workshop. The methods used are described in detail in the respective chapter. This could be seen as occurring in what Clandinin and Rosiek (2007) framed as a borderland between different positions.

Literature reviews

In parallel with the exploration on the field, this work builds on three explicit literature reviews that all have been previously published and are summarized, updated and developed in this thesis, primarily in Chapter 3. In a pragmatist inquiry comparing theories and perspectives is an inherent principle. These inquiries into literature are part of the

institution of the problem and conceptual reasoning in the pattern of inquiry.

1. *Comparison of key concepts in Design Thinking and Service Dominant Logic*. (Published in Wetter-Edman (2009, 2010a, 2010c)) This comparison draws on key literature in the designerly conceptualization of Design Thinking and on key publications on Service Dominant Logic by Vargo and Lusch from 2004-2008.
2. *The synthesis of (service) design and service (dominant) logic literature leading to a conceptualization of Design for Service*. (Previously published in Wetter-Edman (2011); Wetter-Edman *et al*. (2013); Wetter-Edman *et al*. (2014)). Draws on key concepts in the two bodies of literature, and the identification of potential contribution between the two fields in the above-mentioned papers. Developed tentatively in my licentiate thesis, however not yet framed as Design for Service and further developed in collaboration with design and service research scholars during 2012-2014.
3. *Comparison of relations and rationales for users and customers involvement in service design/innovation*. Similarly to the previous review this was first developed in the licentiate (Wetter-Edman, 2011) and then further expanded in a book chapter (Wetter-Edman, 2012). This comparison established that design research describes designs role as intermediary between the user and the firm, a role that is not attended to in service innovation research. Further, that there are diverging rationales for involvement in the two bodies of research.

The figure illustrates the temporal relation of field and literature studies. (fig 2-3). Two additional studies based in the interviews made during 2009 were part of the development of my thoughts, however, these are not explicitly referred to in this dissertation. This concerns a study in how designers conceptualize value based in interviews (Wetter-Edman, 2010b), and Wetter-Edman and Johansson (2011) arguing that service designers tend to move between user-centered and design-driven approaches to users involvement throughout the process.

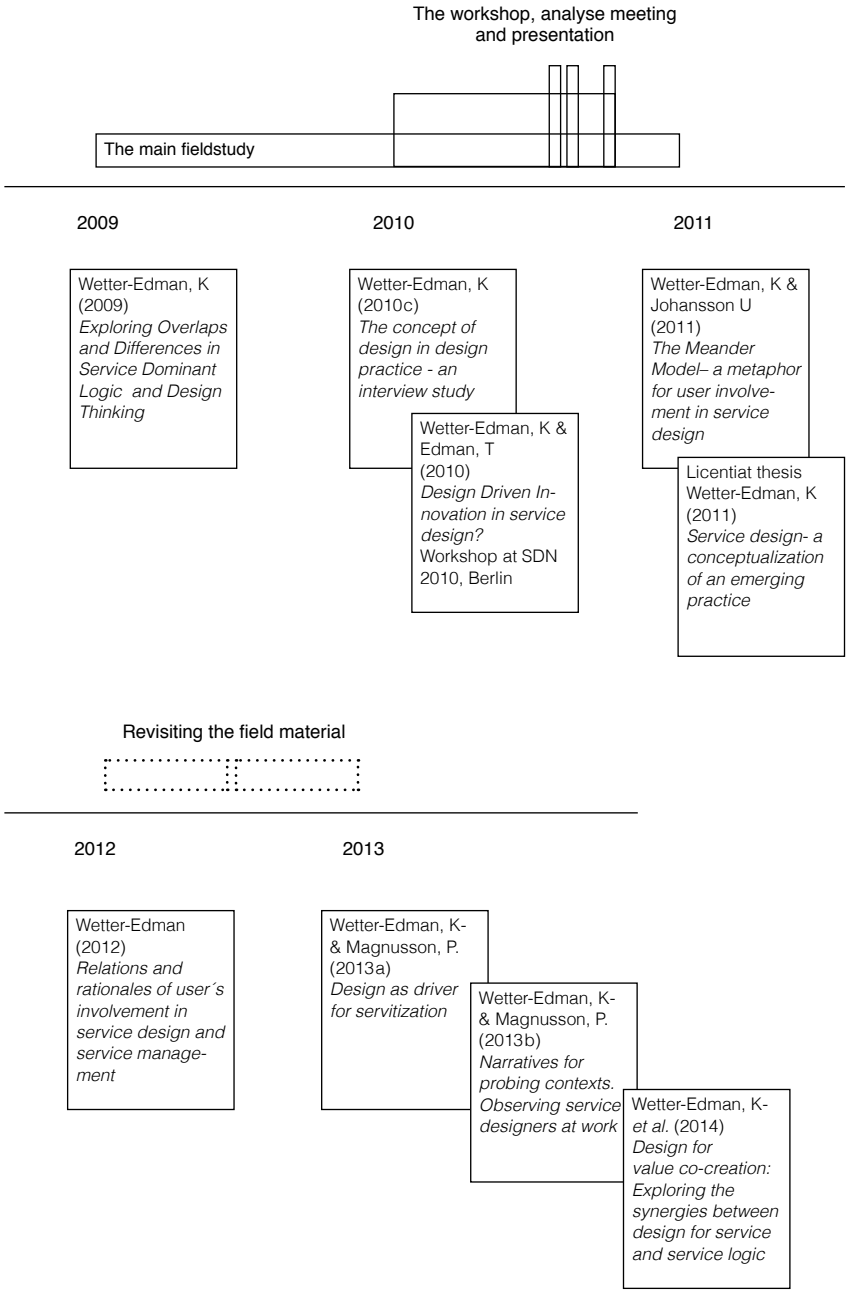


Figure 2-3 Data collection and publications over time.

My position in the research project

As argued above, there are many close connections between pragmatism and designerly ways of working. Pragmatism is a scientific approach that seems to fit well with practice-based design research. Despite this, I decided to situate myself and my practices in a less central position in this project, and still attend to a pragmatist position. My explanation for this position is as follows.

There were certain decisive moments where I made the decision to take a less active part in the actual design work than initially planned[20]. This was because I did not consider myself to be an experienced practitioner in the field of study; I also recognized the effort it takes to move between these two states of practice, the design practice and the academic practice. So I decided to take a more 'traditional' position in relation to the subject matter, more related to social sciences than design research. In relation to the direct experimentation suggested in pragmatism, my role has been to develop and construct the project and inquiry per se. I will show below how the relevance and interplay of theories and practice have been balanced.

My role in the field study project

As the person who initiated the project and set the frame for the activities, my previous experience has played a role both in the field and in the interpretation. First, through my own design training and practice I can relate to what is happening in the different situations. I have been a practitioner in similar situations as the workshop and meetings in the pilot study, but this time I participated as an observer in the situations where the workshop took place. I thus have a personal experience of what happened in these different situations and places. Second I have a starting point that is theoretically (and practice experienced) informed. I have a notion of design practice as situated, based in an artistic practice, and

20. In the initial plan I should have done some of the pre-research on the field about the users and then handed this over to the design agency. That would however, also have contradicted a pragmatist view since the designers then would have worked with user-information processed by me.

used this for creating new meaning in these situations. These attributes have of course played a role in what I have seen and taken for granted in the situations.

In relation to more specific situations in the field, acquiring multiple roles in an ethnographic project is often something to strive for, but can also have implications for the ability to observe what is happening in the situations, especially when studying a culture in which the researcher him/herself makes a part (Wadel, 1991). This situation is exemplified in my study, where I as designer study other designers and their practice. In this research project I did not plan on taking an active role as a designer and hence the role that was sometimes given to me was not something I wished for. In the contacts with the companies involved in the study I have always mentioned my background as practitioner. I believe that this might have had different implications depending on the companies.

In relation to the *design companies*, I do believe it contributed an enhanced trust 'She knows what this is about, she has encountered similar situations but has now stepped into academia for a shorter or longer time'. This, however, may also have played out in a couple of other directions. First, that I, being a designer, might feel stupid if I ask certain questions, as I should know what the situation is about. Distancing myself from my practitioner background, I am taking other roles in the hands-on situations. Second, I suspect that in line with the same argument, the designers did not talk in the same way as they would have done if the researcher had been, say, a social scientist with background in business administration. Being a designer by training, places me *within* the culture I am studying.

However, I had no explicit previous experience from service design when I began this project. My practice experience that I brought into this journey was mainly about design's role in product design, in interdisciplinary teams, relating to users and in relation to organizations. Previous to this study I had not been involved in a service design project. In that sense I was outside the practice I was studying. The designers interviewed had only conducted a couple of explicit service design projects, thus they were also in an early stage of understanding what this actually meant for them in their practice. In this sense it can be said that there has been a mutual growth of understanding, at least considering the designers with whom I have had continuous meetings and discussions over the two years of the study.

In relation to the *industrial company* I believe that my previous design practice experiences placed me in a role where sometimes my advice was sought in areas beyond the projects I followed. I was sometimes asked questions that related more to the role of designer than the researcher role. I had a strong interest in the questions the company was dealing with and it felt strange to totally reject giving feedback. In the case description I account for ways in which the research project per se and my asking questions about how they work with customers and service development played a role. However, I attempted in these situations to relate to cases and published research rather than engage as a design practitioner.

Summary

In this chapter I took a pragmatist stance, and developed how that has impacted the overall process of inquiry. Here I will recapture the process in the light of pattern of inquiry, the different stages in inquiry and the different lines of thoughts and activities that have taken place (see fig. 2-4). The phases have not been conducted out in a linear matter instead several of the phases have been conducted in parallel and in an iterative manner. There is intentionally not a timeline in this representation, instead the focus is on how the different parts of this thesis and connected to form the overall inquiry. However, for the purpose of representation fig 2-4 serves to illustrate the different activities, where they have been situated in the inquiry and how that relates to the conceptual development. In this study I consider the third step of interaction with the field material to be the most explicit experiment or the exploration of the facts-meaning relationship. Although I did not in actual and physical meaning return to the field to collect new data or to stage a new experiment I returned to the field with a different understanding, and zoomed in on specific aspects of the data accordingly.

Throughout the inquiry I have used literature reviews and explorations in the field to develop the understanding for the subject matter of this thesis: to further develop the connections between design and service logic through continued development of the Design for Service framework. The next chapter explicitly focuses on the development of the Design for Service framework.

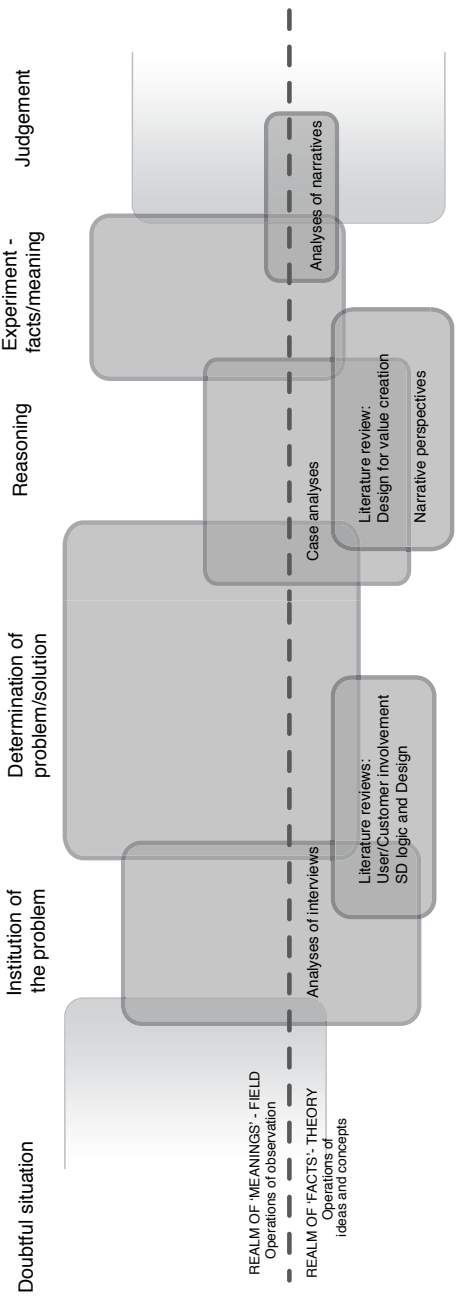


Figure 2-4 Application of pattern of inquiry as research method in this study

3

Theoretical framework – Design for Service

In this chapter I summarize research in Service Design and Service Logic as cornerstones for Design for Service, present the framework in detail, and pinpoint potential tensions in regards to users' involvement. I then explore and discuss relations and rationales for user/customer involvement in the design and service innovation literatures. Finally a development of the inquiry is presented.

Directions in Service Design research

Growing academic interest has now generated enough knowledge to make it possible to distinguish a set of directions and approaches in service design research, building the area from a design perspective. In broad terms the development of research within service design has been concerned with the following themes: exploring and describing the emerging practice (Sangiorgi, 2009), attempting to classify and differentiate it within the design disciplines (Holmlid, 2007), or to define relations to service management, marketing and engineering. In effect, the main efforts have been to define the field. Just as service has been positioned relative to products, service design was positioned relative to industrial design (Holmlid & Evenson, 2008), although the early research instead emerged from designers and practitioners with an interaction design background (Holmlid, 2009).

Where the IHIP characteristics mentioned earlier described services in relation to products as the deliverable. Holmlid (2007) compares service design, interaction design and industrial design and describes what dimensions of service design are expanded within the areas of design material, process and deliverable. In relation to industrial design, Holmlid argues interaction designers have explicitly dealt with processes, time, and intangibility issues in interactions, which has not been pronounced dimensions of industrial design.

As knowledge has been built, two major approaches in the early peer-reviewed research in service design have been identified (Blomkvist et al., 2010). The first approach is to widen the scope by connecting the emerging discipline to other non-design fields, like marketing and engineering, and the second approach is to explore and challenge the basic assumptions in service design and the inherited methods.

The three main streams identified in early Italian research, transformations, interactions and systems/complexity, are argued to be representative of the development of service design research that has developed to date on an international arena (Pacenti & Sangiorgi, 2010). I understand these streams in relation to what is being designed: *Transformations* on individual, organizational or societal level, *Interactions* at different interfaces (one-one, one-many, many-many) and with this follows a demand for understanding the increased *Complexity* on a systemic level (Sangiorgi, 2009).

In a review of peer-reviewed material published in 2008-2009 Blomkvist and colleagues (2010) identified five somewhat overlapping areas within these three streams and Segelström (2013) reviewed seven post graduate service design theses published after 2009 and argues the continued relevance of these areas. The research focused on building knowledge related to: 1) design theory, 2) management, 3) systemic approaches, 4) design techniques and 5) case studies. The design theory trend relates to the construction of a common language, exploration of perspectives on service design and exploration of co-creation, and similar. The overviews highlight the dominance of work related to the development of design techniques including the development of new tools and processes, and integration of already existing ones from other fields. Management is also explicitly mentioned as a research area used for grounding knowledge. The systemic approaches are mainly attributed to

an engineering perspective and product-service-systems (e.g., Morelli, 2003, 2009), but are also present in work connecting service design with social issues and sustainability (e.g., Jegou & Manzini, 2008; Manzini, 2009).

The tools and object(ives) of Service Design

As been touched upon the tools and methods are often described as core in design and, above all, competence in visual form and aesthetics are argued to be one of the key skills of design practice. However, the tools and methods per se are prone to be dominant in the descriptions and sharing of what design and service design is (Akama & Prendiville, 2013; Bailey, 2013). Examples of this are the IDEO methods cards[21] and free-of-charge human-centered design toolkit for human centered design[22]. The first book about service design; Service Design Thinking has an explicit focus on doing through a broad selection of short descriptions of service design methods (Stickdorn & Schneider, 2010). Kimbell and Julier have published a collection of methods for social innovation (2012) in addition there are platforms sharing methods and tools such as servicedesigntools.org and servicedesigntoolkit.org. Apparently there is a belief within the practitioner community that there is a strong relation of the tools and methods and the result of the process. Surely, a specific tool will by definition turn the attention to specific aspects and thus shape the result. In Wetter-Edman (2011) I argued that the tools per se do change the perspective of what the purpose and object of service design is about; from a specific interaction to transformation, change and value creation. Further I suggested that the tools are foremost for engaging actors through user centeredness and participation, thus drawing on a broader design tradition. Another aspect of the tools is the focus on various means for visualization and prototyping. In the following sections I recapture and summarize the literature reviews previously published in Wetter-Edman (2011, 2012).

21. www.ideo.com/work/method-cards/ is also available as a mobile application.

22. www.ideo.com/work/human-centered-design-toolkit/

The how – tools and methods

In the book Design for Services Meroni and Sangiorgi (2011) position design's contribution in relation to IHIP service characteristics by discussing how design practice has met the different challenges imposed by non-product aspects. For example, *intangibility* is dealt with by making the intangible tangible and using evidencing, and the characteristic of *inseparability* is met through the use of co-design approaches. This could be understood as different tools and methods developed, most likely intuitively, by design practitioners to deal with new challenges when applying their skills to service.

User - centeredness and participation

Design has long been argued as taking the user's perspective into product development (Norman, 1998; Sanders & Stappers, 2008), and participatory approaches have been around for quite some time where the users are seen as experts on their own situations (Ehn, 1992). A basic premise in service design practice is that it is inherently customer-, human- and user-centered (Holmlid, 2009; Meroni & Sangiorgi, 2011; Stickdorn, 2010). The increased attention given to this aspect of design work in service design is often related to the co-creative character of service encounters. For some design theorists this description is implied in the concept of design practice, meaning that the designer always keeps the human perspective (Hanington, 2003). The character of service being co-created in the interface between organizations and customers implies a need for understanding a broader range of people than only customers and users. Segelström (2013) explored this idea in his recent dissertation, although he argues a need for designers to maintain a stakeholder perspective in the tools and methods, his studies show that service designers primarily use tools and methods focused on users and customers.

Examples of these are methods that are developed foremost within product or interaction design and then adapted and used for service design. These are for example labeled as: empathic design methods (Buchenau, 2000; Leonard & Rayport, 1997; Sanders & Dandavate, 1999), probes and/or tool kits that allow the users to collect the information themselves while specifying certain themes and then returning them to the design team (Gaver, Dunne, & Pacenti, 1999; Mattelmäki,

2006) and contextual design (Beyer & Holtzblatt, 1997; Sleeswijk Visser, Stappers, Van der Lugt, & Sanders, 2005). Empathic abilities are one of the frequently mentioned characteristics of user centered design practice (Kouprie & Sleesswijk Visser, 2009; Mattelmäki, 2006; Sanders & Dandavate, 1999). Methods to capture and communicate this empathic ability are among the items placed under a broad user-centered umbrella. Another way to express the empathic capability is to say that the designers make use of themselves and their own experiences for understanding the situation at hand, thus relying on their artistically trained skills in a pragmatist tradition.

User-centeredness, no matter how empathic implies designing *for* instead of *with* people (Sanders & Stappers, 2008). Moving between the perspectives of designing *with* and designing *for* is difficult. In descriptions of service design practice, empathic ability is often taken one step further and service design is often described as co-creational and participatory. Methods aimed at designing *with* the users, are anchored in the interaction design discourse and most prominently in the connection to the Human Computer Interaction (HCI) research and the participatory design tradition (Holmlid, 2009; Junginger, 2011). These practices mean involving other stakeholders (non-designers) in the idea generation process (Han, 2010; Stickdorn, 2010), often by using participatory and/or co-design techniques (e.g. Burns *et al*., 2006).

Design scholars have dealt with the concept of co-design in different ways. Botero (2013) sees co-design as a 'contemporary opportunity' in the realm of user centered design and participatory design and does not discuss it as a specific case, whereas others explore co-design as a special case of design, arguing that this is when both designers and non-designers are involved throughout the process (Eriksen, 2012; Sanders & Westerlund, 2011; Vaajakallio, 2012). Similarly, Mattelmäki and Sleeswijk Visser (2011) in an attempt to make sense of diverse co-concepts and co-tools conclude that co-design is a collaborative mindset whereas co-creation focuses on explicit collaborative creativity.

Some of the approaches, such as design games (Vaajakallio, 2012), are based in theories of play where users and other stakeholders are engaged and encouraged to share their experiences as well as being part of co-constructing possible futures. This is reflected in participatory design approaches where actors, in particular users, are regarded as being

resourceful, as well as knowing how to use resources, and transform them in order to achieve aims and goals (Holmlid, 2009). A participatory approach (Holmlid, 2009) therefore co-creates value by supporting people to integrate these resources in the design process to generate more effective and meaningful solutions (Holmlid, 2012).

In service design the explicit development of methods that seek to involve different stakeholders in the process, both on the front stage, for example customers and frontline staff, and backstage, or employees and managers in supporting functions. The implications for design practice include an increased focus on how to manage and set up the collaborative events (Botero, 2013; Clark, Boije, Fraser, & Young, 2012; Sanders & Stappers, 2008). In turn that also affects the role and perception of the contributions of designers in collaborative design settings.

The emergent roles of designers in these relatively new settings have been discussed as being provocateur, capability builder, visualizer of the intangible, negotiator of value, and mediator of stakeholders (Inns, 2007b; Tan, 2012). Instead of being the competence that controls the outcome, the designer's role can be described as leading and facilitating activities, as well as producing material artifacts, and thereby establishing the situation where the interactions take place (Botero, 2013; Eriksen, 2012; Han, 2010; Tan, 2012).

Visualization and prototyping

In service design the intangible nature of the interactions that form the service brings increased attention to the visualization of temporal, interactional and relational aspects. This applies both in the development process where diverse tools and methods developed (Segelström, 2010), and in the realization of the service where evidencing and touchpoints (i.e. making the service tangible) have become an important aspect (Clatworthy, 2013; Stickdorn, 2010). Morelli (2003) argues that designers have developed practical skills to visualize and clarify for the purpose of concretization of demands related to qualitative and abstract values. Diana, Pacenti, and Tassi (2010) classify visualization techniques in four general categories, each capturing different characteristics of service: maps, flows, images and narratives. Segelström (2010) explores and describes six commonly used visualization techniques: customer journey, desktop walkthrough, persona, storyboard and system map.

In further analyses he argues that the visualizations are primarily used for articulating insights, where persona and storyboarding are the most frequently used. However, customer journey and storyboarding seem to capture most the complexities in service design (Segelström, 2013).

The service blueprint with the purpose of capturing the relations between front and back stage developed within service marketing is as mentioned above used also by service designers (Bitner, Ostrom, & Morgan, 2008; S. Brown et al., 1994). This method has been further developed both from a service innovation perspective (Patrício, Fisk, e Cunha, & Constantine, 2011) and from a design perspective (Aebersold, Polaine, & Schäfer, 2010; Wreiner *et al*., 2009).

Prototyping shows aspects other than traditional visualization techniques as it involves people and artifacts in action. Although using Blomkvist's (2011) definition of prototyping as being any external representation visualizations becomes also a case of prototyping. In explorations of prototyping for understanding and developing an ongoing practice, findings suggest that a prototyping service poses different challenges than prototyping products (e.g., Blomkvist & Holmlid, 2010). These challenges are mainly related to lack of control of the final service context, including inconsistency in service delivery, authenticity of behavior and context, validity of evaluation. They are also related to the understood character of service as design material, that is, the intangibility and the influence of time. In accordance with service logic service prototyping can be considered along the continuum of artifact, use, context and service (Blomkvist, 2012).

For capturing the interactional and temporal dimensions several tools and methods draw on theatrical metaphors such as role plays, improvisations, the service as a scene and desktop walkthroughs see for example the special issue of Touchpoint in 2012 devoted at this topic (Touchpoint, 2012). Other methods are framed as experience prototyping aiming to gain empathy through deep understanding of latent needs, dreams and expectations, and use this as a starting point for the creative process (e.g. Koskinen et al 2003; Kouprie & Sleeswijk Visser, 2009; Buchenau & Suri, 2000).

So far, the research on visualization and prototyping has focused on categorization and description of methods and tools, and not so much on the nature of designerly practices in these tools. However, it is often

pointed out that these tools are different than the tools traditionally used in service marketing, for example.

What is the purpose of these tools?

Although there are multiple purposes and complexities involved in every tool, method and approach described above, a red thread runs through these description: the idea of understanding experiences and contexts for further use and communication in the (service) innovation process.

Focusing on experiences can work as a lever for organizations to shift from an inside-out to an outside-in approach to innovation that also can be transformational (Sangiorgi, 2012). User experience is a multifaceted concept and the contextual understanding of users' experience and their emotions is at the center of service design practice as experiences shape the way people perceive situations and make decisions (Goleman & Sutherland, 1996). Approaches such as Empathic Design and Design for Experience view user experiences from an anthropological point of view. From this perspective users are described as individuals, with rational and irrational motivations and emotions as well as everyday routines and dreams that can inform and inspire design (Koskinen, Battarbee, & Mattelmäki, 2003; Leonard & Rayport, 1997; Sanders & Dandavate, 1999). Experiences also depend on the social context, as Battarbee and Koskinen (2005) explain; drawing on symbolic interactionism, they introduce the concept of co-experience, where individual experiences and their qualities are affected by the situated dynamics of social interactions. Also Wright and McCarthy (2008) have suggested connections to a pragmatist perspective on experience in human-computer interaction context. They propose that "Seeing experience as the dynamic inter-relationship between people and environment, or as the continually changing texture of relationships, effectively focuses enquiry on person and environment as a whole, or, as Dewey [1925] put it, as 'an unanalyzed totality'." (Wright & McCarthy, 2008, p. 54).

Another central purpose of these tools is to explore the users' context. In design, context has traditionally been regarded as everything that surrounds the object that is designed, and can be approached either through representing the context or viewing it as inseparable from actions. The purpose of contextual understanding is to widen the focus from a specific interest in the interaction with a specific product and

to understand the role this product/service plays in the users' lives. For understanding the users' context designers often move into the context of the users by for example the physical use of a product or through a service walk through (Arvola, Blomkvist, Holmlid, & Pezone, 2012; Vaajakallio et al., 2010).

The what – the object(ive) of doing (service) design

As discussed in the section of the changing design object, there is a strong notion of transformative powers in service design. Pacenti and Sangiorgi (2010) identify transformation as one of three main research areas in service design research, along with interactions and complexities. As a consequence, the designers and development process cannot control the design object; the focus is on relations among the value creation process, social relations and materiality (Kimbell, 2011a, 2013; Secomandi & Snelders, 2011).

Recent research have treated the subject in detail: Secomandi argues the object of service design is the interface between the customer and the organization (Secomandi, 2012), Clathworthy brings forward the touchpoints as a beneficial joint focus for new service development (Clatworthy, 2013) and a critical discussion on people and human behavior as the object of service design can be found in Singletons dissertation (Singleton, 2012). This latter topic is also brought forward in Redström's earlier critique towards designers making the use per se, and thus people, an object for design (Redström, 2006, 2008)

Kimbell (2013) brings forward the tension in defining an object for designing for services. On the one hand she argues designers attend to the specific interactions and experiences like the ones addressed by Meroni and Sangiorgi (2011) above. "On the other, the emphasis is on how people engage with artefacts and organizations." (Kimbell, 2013, p. 22). In a pragmatist understanding the object per se is always an outcome of a previous inquiry; and it is also only a special part of the larger situation. When making an inquiry objects are means for understanding something else about a more general subject matter (Dewey 1938). Thus in design for service the attention paid to specific interactions and artifacts can be seen as *objectives* of the design process, where as value creation is the more general subject-matter of inquiry.

Transformation and change

Although design and the organization were discussed as far back as 1997 (Bruce & Cooper, 1997) the focus was on the product and the physical manifestation of design. The relation is discussed in terms of dependencies, how marketing decisions affect design or market triggers of design rather than how design could be used for changing the organization as such. Service design is proposed to be about holistic solutions and creation of value beyond economic and market-driven values and can, as Eriksen argues, "be viewed as a mindset for change" (Eriksen, 2012, p. 57).

The transformative character of the design object implies that designers increasingly meet issues of organizational and behavioral change. This change takes place at different levels: individual, organizational and societal (Sangiorgi, 2009, 2010). In her study of service design in the Australian tax authority, Junginger (2006) relates service design to organizational change, and other scholars discuss the transformative powers of prototyping in relation to organizational change (Coughlan, Suri, & Canales, 2007). Touchpoint May 2010 issue was a special issue dedicated to service design and behavioral change, which shows an increasing awareness and interest in these issues. An outcome that can be described as transformation has a process character, which means that it is ongoing and continuous (see e.g. Holmlid, 2007) also described as sequential (Stickdorn, 2010). This outcome has a distinct phase in its development process, most often not the same as in the realization of the actual service; this is also the case with products. However, in comparison with product design, the difference is the continuous involvement with the organization. The organization and its employees are part of the system that realizes the service, together with the user. This process not only concerns the implementation of a new service, but the continuous creation of the same is beyond the traditional scope of design and has been framed as 'design after design' (Ehn, 2008).

Designing for value creation?

Service design is often described as holistic with a focus on relations and interactions in systems (e.g., Mager, 2009; Manzini, 2009; Sangiorgi, 2009; Stickdorn, 2010). Sangiorgi (2010) draws on the increased level of complexity in transformation design where the interactions are at the level of systems and networks, and discusses design for services rather

than service design.

The design object then becomes to understand how the actors within the system relate and act for value creation. Kimbell (2009a) argues, in line with Vargo & Lusch (2004, 2008a), that a service perspective is thus fundamental to all (design) activity, since the value is co-created, whether it is with a product or in a service encounter. This is equally fundamental in the proposed Design for Service framework.

For further developing the understanding of value creation as a subject matter for design, I will below shortly present core concepts in service logic and their relevance for service innovation and customer integration.

Core concepts in Service Logic and their relevance for Design

Service Logic should not be understood as a theory but rather a perspective on value creation. Some of the aspects and thoughts of service logic are intriguing and resonate well with my understanding of how design practice relates to value creation.

Defining service logic

The first fundamental argument in the proposed perspective was to define service as: "applications of competences (knowledge and skills), trough deeds, processes, and performances, for the benefit of another entity or the entity itself" (Vargo & Lusch 2008b, p. 26) These thoughts were further developed in ten Foundational Premises (FP's) and have been elaborated by several service logic scholars (see Grönroos, 2008; Vargo & Lusch, 2008a). In the most recent development Lusch and Vargo (Lusch & Vargo, 2014; Vargo, 2013) do propose a new theory of the market and suggest four core premises: FP1, FP6, FP9 and FP 10 to be the 'axiom' of service (dominant) logic. A short description of the ten premises is presented in Table 2.

I will here discuss these 4 premises relevant in the context of this dissertation and Design for Service. They also overlap with the four axioms stated by Lusch and Vargo (2014).

Foundational premises of S-D logic

Premise number	Foundational premise
FP1	Service is the fundamental basis of exchange.
FP2	Indirect exchange masks the fundamental basis of exchange.
FP3	Goods are a distribution mechanism for service provision.
FP4	Operant resources are the fundamental source of competitive advantage.
FP5	All economies are service economies.
FP6	The customer is always a co-creator of value.
FP7	The enterprise can not deliver value, but only offer value propositions.
FP8	A service-centered view is inherently customer oriented and relational.
FP9	All social and economic actors are resource integrators.
FP10	Value is always uniquely and phenomenologically determined by the beneficiary.

Table 2: Adapted from Vargo & Lusch (2008a, p. 7)

FP1, *Service is the fundamental basis of exchange*, through this definition the understanding of service was no longer tied to whether the outcome was tangible or not. As a subset, FP3 states that goods are a distribution mechanism for service provision, from this it follows that all design is design for value co-creation.

In FP6, *The customer is always a co-creator of value*, the relation between the company and the customers is brought forward as key for value creation and as an important resource in value co-creation. That the customer is always a co-creator of value, implies that value creation is interactional and arises through use in a particular context. This premise has been disputed by scholars arguing that the customer is always the creator of value but only sometimes in interaction with the firm (Grönroos, 2008; Grönroos & Voima, 2013; Heinonen *et al.*, 2011).

FP 9 states that *all economic and social actors are resource integrators*, and thus focuses on networks and value creation as resource integration. Relevant for this premise is that SD-logic makes the distinction

between operant resources, or knowledge and skills, and operand resources such as physical goods. Value is created through actors' resource integration. When the customer and other actors integrate and operate on, or apply the resources of the service company to other resources in their own context (Gustafsson, Kristensson, & Witell, 2012) including the social context (Edvardsson, Tronvoll, & Gruber, 2011). Similarly value can also be co-destructed when the practices of customers and employees are not aligned (Echeverri & Skålén, 2011).

In FP 10 the characteristics of value is argued to be "always uniquely and phenomenologically determined by the beneficiary." (Vargo & Lusch, 2008a, p. 9). This implies that if the user defines the value in use, the situation in which the person is situated is important; this also highlights the time and place dimensions and network relationships as key variables (Vargo, Maglio, & Akaka, 2008). This elaboration suggests that value-in-use is extended to value-in-context. The latter's focus on the situation and the actors involved where and when the value is created is fundamentally different from a traditional market exchange view (Edvardsson, Kristensson, Magnusson, & Sundström, 2012). From the provider's perspective, this means that the same service delivery process might generate different values for different users depending on the context.

Chandler and Vargo argue that the context frames exchange. This relies on a definition of context as "a set of unique actors with unique reciprocal links among them." (2011, p. 40). Thus the value co-creation depends on the actors forming dyads, triads or complex networks. In a similar line of thought, context is defined as a resource constellation that is available for customers to enable value co-creation. (Edvardsson et al., 2012, p. 419) In relation to design, the understanding of value-in-use is interesting, even more so when developed into value-in-context.

However, although context and experiential aspects of value creation are brought forward, the concepts have until recently been treated sparingly within service logic literature. Vargo et al. (2008, p. 151) ask the question: *"What approaches do we need to understand the sociotechnical context of value creation?"* in addition Chandler and Vargo (2011) argue that it is necessary to deepen our understanding of contexts and its heterogeneous and distinctive nature. As mentioned above context and

value creation is interrelated, I will below present an additional perspective on value (co-) creation that is relevant for understanding and articulating the contribution of design in the Design for Service framework.

Value co-creation in service logic

Value and value creation is a central concern in marketing at large, which makes it impossible to attend to in-depth within the scope of this thesis. Within service logic research value co-creation is central and directs attention from individual interactions to the mutual processes between firm and customer for creating value (Vargo *et al.*, 2008).

Grönroos and Voima (2013) argue that traditional descriptions of value creation and co-creation related to the service perspectives places the firm in control of value creation, and only invite the customer to join the process as co-creators. Although it is stated in the foundational premises above that value is always uniquely and phenomenologically determined by the beneficiary, Grönroos and Voima positions the customer as the actor that both creates and evaluates value over time and in a "experiential process of usage" (Grönroos & Voima, 2013, p. 138). Thus they argue:

> Therefore, in the same way that the firm controls the production process and can invite the customer to join it as a co-producer of resources (e.g., Eiglier and Langeard 1975), the customer controls the experiential value creation process and may invite the service provider to join this process as a co-creator of value. (Grönroos & Voima, 2013, p. 138).

Based on this argument they further suggest that the service provider should consider how they could be involved in the customers' lives instead of getting the customers involved with their businesses.

For analytical purposes Grönroos and Voima (2013) have proposed three spheres that could help position the locus of value creation, the provider sphere, the customer sphere and the joint sphere (fig. 3-1).

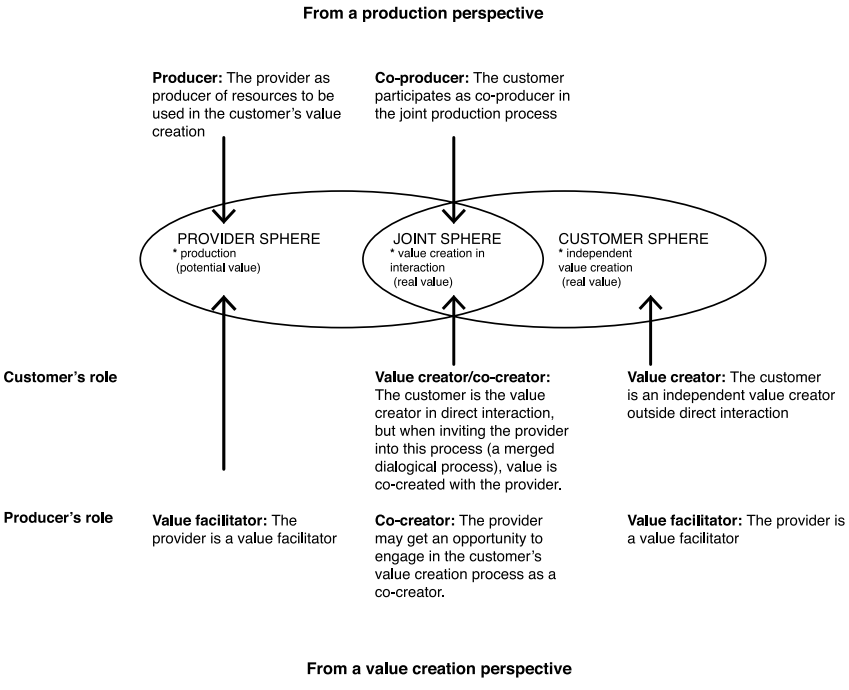


Figure 3-1 Value creation spheres. Adapted from (Grönroos & Voima, 2013, p. 141)

According to the authors value co- creation can only occur in the joint sphere and value creation only in the customer sphere, this opposes to some extent the idea of value as always co-created. In the provider sphere value can only be facilitated. This implies that the provider can only prepare for the value creation that sometimes occurs in collaboration between the customer and the firm – value co-creation in the joint sphere - or by the customers themselves without direct interaction with the facilitating firm.

Further Echeverri and Skålén (2011) argue that value co-creation dominantly has been viewed as a positive act and there are lacking studies concerning value co-destruction. Using a practice theoretical perspective they frame a continuum of four practices where the actors, or subjects take on one of the following positions: as value co-creator, value co-recoverer, value co-reducer and finally value co-destroyer.

Value and value co-creation per se is rarely discussed within the design discourse, I find these perspectives relevant and helpful for further development of the Design for Service framework.

Implications of service logic for the role of customers in service innovation

Where design as a field per se is occupied with core activities of understanding prerequisites and developing propositions for the future, service research is a broad area where new service development (NSD) and service innovation are understood as subfields.

Research in service innovation mirrors early discussions within the service-marketing field, including differences between services and products and to what extent the innovation processes are different for the two (Gallouj & Weinstein, 1997). However, behavioral aspects are emphasized and innovation in service is most often either technological or behavioral, as well as combination of the two. Thus innovation in service can be seen as "renewal of human behavior"(Sundbo, 2008, p. 26) based on the view of service as "fundamentally a behavioral act" (Sundbo, 2008, p. 26). Further, innovation in service is most often seen as a process (Gallouj & Weinstein, 1997). Thus it is crucial to understand the customer and the people involved in service delivery.

In line with the idea of service innovation based on knowledge and skills, several scholars discuss the implications of a service logic perspective (Breidbach, Smith, & Callagher, 2013; Edvardsson, Gustafsson, Kristensson, & Witell, 2010; Michel, Brown, & Gallan, 2008a; Ordanini & Parasuraman, 2011; Payne, Storbacka, & Frow, 2008). Differences between a traditional goods logic view on innovation and a service logic view on innovation are summarized in table 3, where Vargo (2013) discuss Goods innovation, Services innovation as a transitional concept based on IHIP, and then finally service innovation. Vargo argues that service innovation becomes, "finding novel and useful ways of enhancing their own [actors] value co-creating activities by participating in ecosystems through resource integration and service provision to assist other actors in their own value co- creation, also through resource integration and service provision." (Vargo, 2013, p. 8).

Goods Innovation	Making better output (goods) New technology Efficient processes Purpose: Increase market share
"Services" Innovation	Making better output ("services") Apply goods innovation principles, adjusted for "IHIP" deficiencies
Service innovation	Providing input into customers'/actors' value-creation Link firm-available resources to peoples' purposes Effective solutions Purpose: "Owning" the market -- market shaping De-institutionalisation and re-institutionalisation

Table 3 Views on innovation. Adapted from (Vargo, 2013, p. 8)

In service logic terms, innovation is seen as a change in and of the actors involved in the value co-creation processes. The aim and object of the service innovation is of course a more valued situation of value (co-) creation that can enhance profit for the firm.

This body of research redefines the structures and demands for what is to be considered as radical/discontinuous or as incremental innovation and how these arise. The authors emphasize the role of the customer/user and how innovation is about change in the co-creation processes. Further, as Edvardsson and colleagues (2010) contend, it is necessary to understand the means by which the customers co-create value in use.

In their empirical study, Michel *et al*. (2008a) argue that discontinuous innovation according to a S-D logic perspective can arise along two dimensions: changes in the roles of the customers, and changes in the firm's value creation. Discontinuous innovation is defined as significantly changing how customers co-create value, and significantly affects market size, prices, revenues, and so on. According to the authors, innovation in service would be to innovate customers instead of products, and to do this in their three roles, as *users*, *buyers* and *payers*

(Michel *et al.*, 2008a). In addition, the firm's value creation is changed in three possible ways: 1) knowledge is embedded in objects, 2) resources integrated or divided within the firm and in relation to the customers, and 3) knowledge and resources distributed among a number of parties involved in the value co-creation. According to this study, discontinuous innovation always significantly alters one of the dimensions of the firm's value creation, and at least one or some combination of the customer roles. Similarly, in their study of the re-development of a rail-trench, Breidach and colleagues (2013) adopt the view of seeing the customer as something they emphasize as different than "the customer as payer" and "the customer as end user". However, the authors suggest that one person can take on several roles in the same project, such as being both a project member and living in a community where the change takes place. According to the taxonomy developed by Edvardsson *et al*. (2010) seeing the customer as buyer would be internally driven innovation, to what extent this is also valid for the situation where the customers are assigned other roles such as payer, user, is not discussed. In relation to design, the proposition of "innovating customers" (Michel *et al.*, 2008b) can be seen as a reframing of what the design object actually is, and further, questions if the firm can or should control these roles at all. In the design discourse this has been discussed as being outside the scope of the designers. Although Redström (2006) highlighted that it is questionable if designers are being able to predict what the actual use will become.

However, customer collaboration seems to be actual activities with customers, whereas customer orientation is an approach within the firm. The conclusions regarding service innovation radicalness mirror to some extent the propositions in design driven innovation that radical innovation does not occur in close relationship with the customers. However, the question arises, how to manage this when the outcome, the service, is co-created with the customer?

Accordingly, service logic brings understanding the customers' roles in focus for service innovation in order to better grasp where and how value is created through resource integration. As mentioned, understanding customers have been key for long time in marketing and service marketing tradition.

Implications for design

Although service (dominant) logic has emerged from service marketing tradition, the concept is increasingly positioned as a more general marketing concept (Lusch & Vargo, 2014). Traditionally marketing and design have had a troubled relationship although both shared ambitions of being customer focused and improving the customers lives with better products and services (Bruce, 2011; Holm & Johansson, 2005). One critique towards marketing from design is that design is not discussed in its own right, but rather as a tool or method in the marketers' toolkit (Bruce & Bessant, 2002). Bruce correctly states the situation in this way:

> It is true that design has been rather neglected by the marketing literature. This is because design is regarded as a distinct profession. Similarly, marketing does not comment particularly on engineering or life sciences or other disciplines that are important for technological innovation. (Bruce, 2011, p. 339).

For driving development of new services, designers argue competence for involving users and understanding context, service marketing traditionally has put most focus on the moment of purchase and consumption of service. Thus have the importance of design as a professional practice been quite marginal, as expressed by Bruce.

With the development of a service logic perspective the notion of value creation transitions from the traditional understanding of value creation as a sequential process, the so-called 'value in exchange' based in the goods dominant logic, or where the value is destroyed when consumed. Instead, service is usually described as processes in which the users are actively taking part in the interaction with the service provider.

Value-in-context is a concept that is debated, but I find it interesting from a design perspective since it emphasizes the contextual nature. This shift in perspective on value creation also lays a ground for a more fruitful connection between design and service marketing/management in the development of new service. Hatami (2013b) argues in an overview of the role of design within a service (dominant) logic framework that not all design perspectives are a good match. Since service logic acknowledges that the value co-creation is in use, design perspectives

that also accept the incapability of defining/designing the final use situation are the most fruitful (Ehn, 2008; Garud, Jain, & Tuertscher, 2008; Redström, 2008).

The relationship and implications of S-D logic perspective on service design has been discussed (e.g., Hatami, 2013a; Kimbell, 2011a; Segelström, 2010; Wetter-Edman, 2011). The explicit overlap of key concepts in Design Thinking and Service Dominant Logic have been explored and found complementary rather than overlapping in regards to meaning. Partial overlaps were found in the understanding of *value* as value in use and value-in-context, *experience* as individually determined, and *networks and actors* as important in the value creating process. However, no overlap was found in the understanding of *people* and *co-creation* (Wetter-Edman, 2009). This latter discrepancy depended on a diverging view on people as mainly being users in the design literature and passive customers in the service dominant logic literature at the time, and co-creation denoting different concepts in design and service dominant logic writings, further developed in section on user involvement and customer integration.

Design for Service: A framework

As can be seen in this overview of design and service research the growing interest in design for innovation purposes and the change in perspective on service occurred around the same time. The specific emergence of service design was accompanied by several large scale developments: 1) the development and growth of networked media technologies, 2) the attention paid to the role of design for innovation of new products and services, explicitly by management theory and practice, 3) the general phenomena of changing markets, from goods to experience economy, in effect the growing service economy, and 4) the decrease in the quality of social environment and thus the considering of social change as design problem (Kimbell, 2009b; Sangiorgi, 2009; Telier *et al*., 2011; Vaajakallio, Mattelmäki, Lehtinen, Kantola, & Kuikkaniemi, 2009).

Drivers for the increased interest in design have been, as Vaajakallio et al. (2009) argue, a general increased interest in a user-centric perspective. Alternatively, Kimbell (2009b) argues that the attention paid

to the role of design for innovation is focused on the designer's creative input in three explicit areas: the designer's human-centered approach and methods, iterative processes of idea-generation through modeling and prototyping and finally competence in aesthetics and visual forms. A framework or model that integrates both design and service research approaches to service design has been requested and also constructed by both design and service scholars. Design scholars have used systematic approaches and coupled with design for example (Morelli, 2002) or adapted customer orientation concepts (Pinhanez, 2009).

Service scholars have approached design by modeling design on accepted methods and tools in service research. For example like the model developed by Patrício and colleagues where a managerial interpretation scheme is dominant, Design is seen as a boxed in process, and very little space is given to the actual design activities based in artistic/aesthetic knowing (Patrício, Fisk, & e Cunha, 2008; Patrício *et al.*, 2011). Earlier, Goldstein *et al*. (2002) proposed the service concept (Edvardsson & Olsson, 1996) to be the 'missing link' in service design research, implying a holistic view of the NSD process. However, more often service design has been treated similarly to how product design has been treated in NPD. For example Edvardsson *et al*. (2000) described it as, "in the design phase the service concept is developed into a service", thus making service design a distinct phase. This means that service design is seen as an 'add-on', as styling or something that comes in quite late in the process. These frameworks do not discuss the different foundations of the two approaches merged in the framework. Recently service design and design thinking have been emphasized as one of ten important development areas for service research (Ostrom *et al.*, 2010), and Fisk (in Ostrom *et al.*, 2010) draws the connection to the arts as to a field where emotions are worked with in practice and sees this as an area for future development.

Recently frameworks integrating both design and service logic perspective on value creation has been developed. The initial Design for Services approach developed by design scholars Meroni and Sangiorgi (2011), where designs contributions are mapped upon identified gaps in the IHIP model; this version also attends to a view of service as a category rather than as value creation. Kimbell (2011) in proposing a Design*ing*

for Service approach does attend to design as inquiry and a service logic understanding of value. The approach is essentially constructed on two different views on service (in a goods logic mode vs. as value creation) and two epistemological approaches to design (design as problem solving vs. design as enquiry). However, the approach situates designing for service in relation to other design approaches rather than develop a framework per se.

The Design for Service framework proposed in this thesis brings together two directions and layers by adopting a fundamental service logic perspective with a design approach based on how to understand experience and context. In Wetter-Edman *et al*. (2014) four propositions are articulated describing how these two layers relate and contribute to each other.

1. Design for Service *explores* existing service systems to understand them from the perspectives of actors, their value co-creation activities, experience and assessment of value-in-context in order to *project/imagine and design* new future service systems. Figure 3-2
2. *Design for Service provides approaches* (set of tools/methods, competences and mindset) for understanding actors and how their experiences are formed in context as a result of how resources are integrated and operated on. In particular, how re-configurations of resources in context may come about through engaging the involved actors using empathic tools and techniques. Figure 3-3
3. *Design for Service extends the meaning of value co-creation* to include not only market-facing resources but also public and private resources in different practices (i.e., tools and approaches). The approach is to use co-design for the collaborative generation of new resource constellations and accordingly become a part of the generation of new service systems. The effect of participation is then called value *co-creation in designing*. Figure 3-4
4. *Service logic provides a theoretical framework* for understanding and analyzing Design for Service practices and contributions. The main contributions from Service Logic literature to the Design for Service field are: resource integration, value co-creation and a systems foundation to describe and analyze how attractive value and experiences can be created for the involved actors. Figure 3-5.

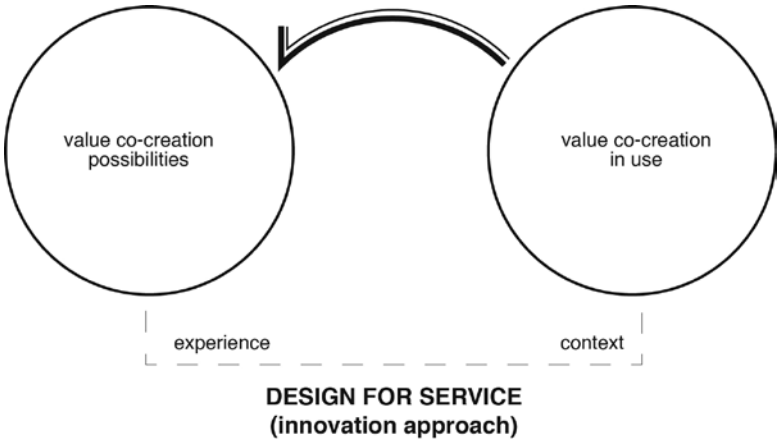


Figure 3-2 Model describing propositon 1: Design for Service explores and proposes new service systems. (Source Wetter-Edman *et al.* (2014))

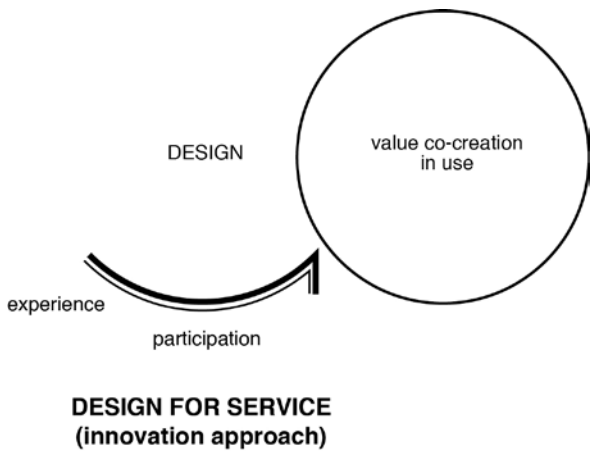


Figure 3-3 Model describing Proposition 2: Design for Service provides approaches for understanding existing value co-creation in use.
(Source Wetter-Edman *et al.* (2014)

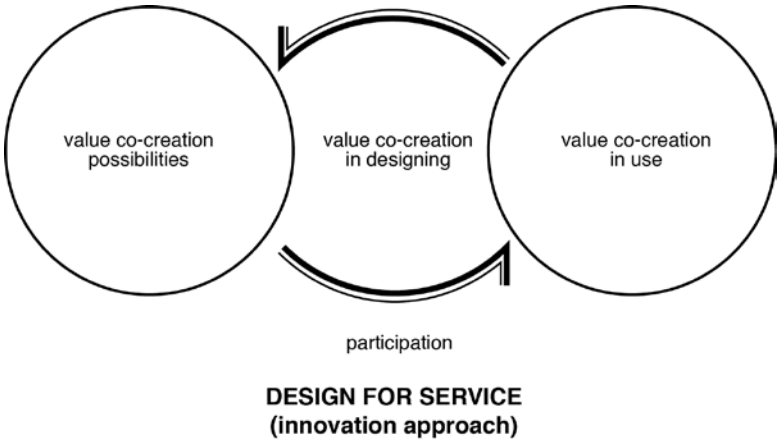


Figure 3-4 Model describing Proposition 3: Design for Service extends Service Logic through value-co creation in designing achieved through participation. (Source Wetter-Edman *et al.*, (2014))

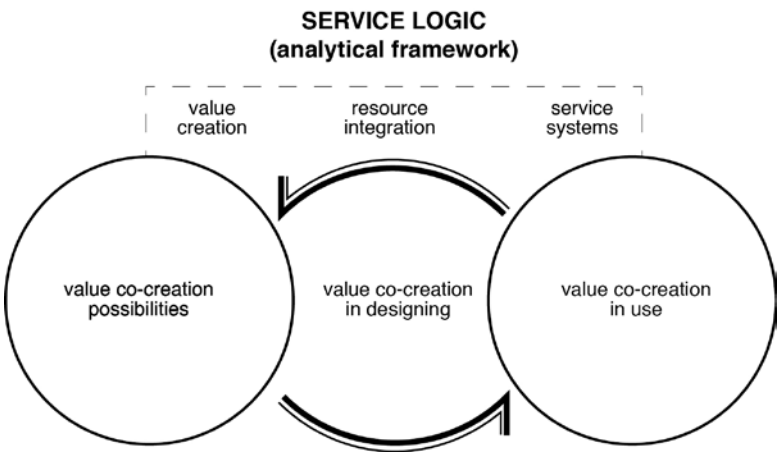


Figure 3-5 Model describing Proposition 4: Service Logic provides an analytical framework for understanding Design for Service practices and contributions. (Source Wetter-Edman *et al.*, (2014))

In this framework concepts based in different epistemologies meet however, the 'service' turn in service marketing opens up for alternative ways of understanding users and their contexts, and as such value creation. As Tronvoll, Brown, Gremler, and Edvardsson (2011) have remarked service research has been dominated by studies and approaches based in a positivistic paradigm and needs frameworks that attend to and understanding of value creation as socially constructed. The framework includes both knowledge and practices related to the practitioner domain, and analytical concepts for judging their mutual relevance. The framework can thus be seen as embracing the principles for a pragmatist inquiry. Below the four propositions integrated to a coherent framework see fig. 3-6.

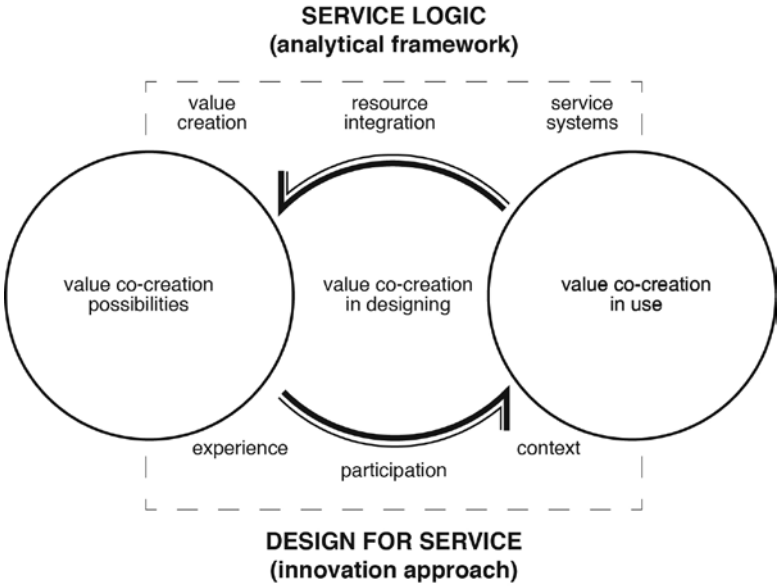


Figure 3-6 The Design for Service framework. (Source Wetter-Edman *et al.* (2014))

Design for Service draws foremost on the user centered design tradition; acknowledge the artistic knowledge inherited through design methods and practice. Tensions are exposed when integrating design practice and traditions with thinking from service management traditions. Based in my interest in this thesis on how users are involved and attended to in service design and development. The continued inquiry will primarily deal with the second proposition stated above, and the related suggestion for further research stated in Wetter-Edman *et al*. (2014):

> Design for Service provides approaches for understanding context and individual actor's experiences: Empathic methods are tailored to the specific demand of resource integration and value co-creation at hand, and the resulting effects are well known. However, which principles underpin this tailoring, and how empathy is actually used in Design for Service is largely unknown.

The customer and users' central position in the development and realization of service in service logic mindset and the merge of these two perspectives makes it necessary to look closer at how the relations with users and customers are treated in the respective discourses.

User involvement and customer integration

The early phases of service design and innovation are characterized by (extensive) user research with the main focus in understanding the users needs, wants, and expectations, as is claimed in both the design and service management research. However, as has been indicated above, relations to and rationales for involving users in these early phases differ depending on the discourse. In the following sections I summarize the findings of a comparison previously published as the book chapter *Relations and Rationales of user's involvement in service design and service management* (Wetter-Edman, 2012), and make some further developments and integration of recent literature. The review builds on key sources on user's involvement in design research and service marketing/management. More specifically, in the richer area of service marketing/management I focus on service innovation (and new service development) literature since, in my view, service innovation equals

what service design is understood to be in design research.

In both the design and service innovation discourses the relations in, and the rationales for user involvement are discussed. One might conclude that the type of rationale underpinning the involvement also has an impact on the relation between the involved parties: however in the design discourse the relation per se is discussed, while in the service management discourse more attention is paid to the rationales.

Relations: user, designer and firm

The design literature focuses on the relation between the designer and the user, and their individual or joint relation to the design object. The core of user centered design approaches, whether closely co-creative or more distant, is the focus on the individuals' skills, knowledge and engagement.

In user-centered design the relation can be conceptualized as the designer moving out in the users' context and back to their own design context. The reason for this engagement with the user is the design object that emerges and develops through these interactions. However; the designer controls this development, conceptualized in Figure 3-7 (Wetter-Edman, 2012).

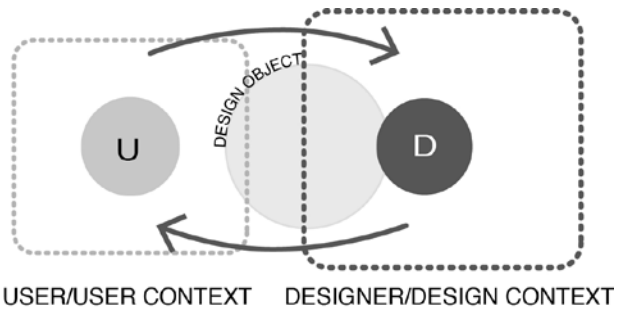


Figure 3-7 conceptualization of the relation between designer and user in user-centered design. Adapted from Wetter-Edman (2012).

In a more participatory approach to users the designers engage actively with the users throughout the process. Designers' roles are brought forward as platform creators and facilitators in co-creation settings. The users are also actively taking part in the actual development and evaluation of ideas and end result, shown in Figure 3-8 (Wetter-Edman, 2012).

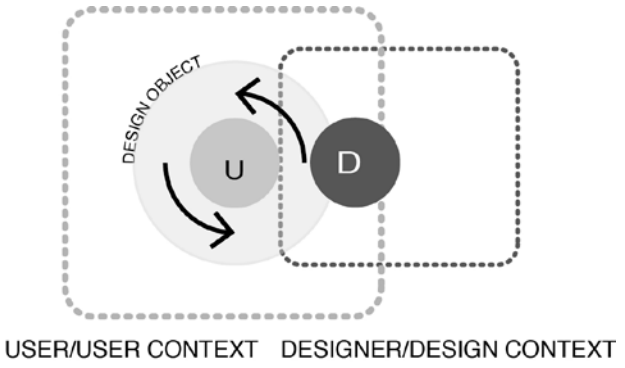


Figure 3-8 Conceptualization of user-designer relationship in participatory approaches. Adapted from Wetter-Edman (2012)

These two types of close relationships with the users have been questioned and critiqued. Design and innovation scholars argue that being close to the user produce incremental improvements rather than radical innovations (Norman & Verganti, 2014; Norman, 2010; Verganti, 2008). In what is called design-driven innovation designers are positioned as interpreters of users' socio-technical contexts, and as brokers of knowledge across branches and organizations.

This intermediary role between the firm and their surrounding networks has been described as brokering of knowledge. Suggesting that designers when moving between different companies puts them in the fruitful position of using and reusing known technologies in new branches (Hargadon, 1997). Brokering of product languages (expression and styles) and meanings in radical innovation suggests that designers draw on their extensive knowledge from moving in between different domains rather than relying on close contact with the users

(Verganti, 2003). The concept of 'brokering' implies that designers move, for example, knowledge, or a technology, in an unchanged and unaltered state, between certain entities, and the contribution of design is to see and propose new applications.

In addition, both Verganti (in product innovation) and Kimbell (in Designing for service) have conceptualized designers as interpreters and negotiators of socio-material and technological contexts (Kimbell, 2011a, 2013; Verganti, 2008). Although the relationships are complex the proposed distant relation to the users and their contexts is conceptualized in Figure 3-9.

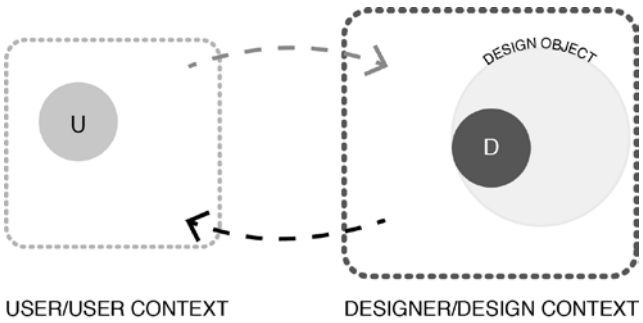


Figure 3-9 Conceptualization of user-designer relation in design driven innovation. Adapted from Wetter-Edman, (2012).

In the service management literature the description of the relationship with users is carried through in line with the firm's logic: the firm and its representatives infrequently move out into the user's context. Both Michel *et al*. (2008) and Edvardsson *et al*. (2010a), suggest that the firm should *see the user as* something or someone else. Although the authors are open to a broader understanding of the customer than the specific purchase situation, it is still up to the firm to decide how they should view their customers, thus the user is still seen as a subject rather than as a partner, see fig. 3-10.

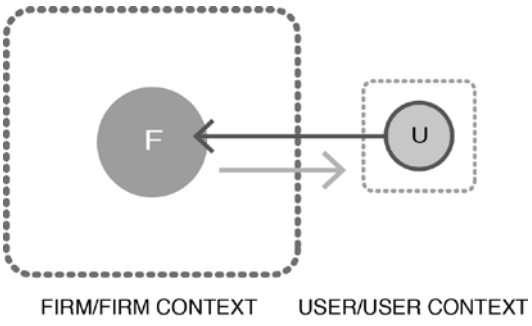


Figure 3-10 Conceptualization of firm-user relationship. Adapted from Wetter-Edman (2012).

In practice there are always people involved with other people, but the entity 'firm-user' in service marketing literature is what is most often depicted. To my understanding this is an instrumental view of the people being involved that merely strengthens descriptions of an inside-out perspective. The more detailed ways in which the firm, the employees, and the users interact in the development of the new service are not discussed in depth. In short, descriptions of specific tools and methods of how to involve users in new service development are lacking. Thus there are no descriptions in service innovation literature of an intermediary role, the very role that the design discourse claims for design practice.

Conversely, in the design literature the relation to the commissioning firm is seldom mentioned, however, user-researchers or user-designer perspectives are mentioned, but it is unclear if they are to be related to the firm. The relationship between management and design is discussed within the discourse of design management, but there the user/customer is not really present. In an exception, Han (2010) takes a stakeholder perspective and studies the designer's role in managing the stakeholders' involvement. It is additionally worth noting the lack of attention given to the development of the design *object* itself outside of the design literature. Instead, the important points are where the initial *idea* came from and to what degree that idea can be seen as new or not, or in what ways further integration can be made in the organization. The difference between paying attention to the object of design or the idea per se is in my opinion fundamental. The object of design is a developing entity, a

thing impossible to define until the project is delivered. In opposition to this stands the idea of 'harvesting' an already finalized idea as for example proposed in the user innovation literature (e.g., Von Hippel, 2009).

Rationales: Inspiration and empowerment or business success.

In the design discourse, the rational for cooperating with users ranges from inspiration to achieving empowerment. However, basic assumption is that the design object will be better if users are involved in one way or another. Thus the aim of the design process is a subjectively judged, good, valuable, and sustainable design object.

Involvement through user-centered approaches is about gaining empathy and inspiration in the early phases. This is done by going out in the context of users, or creating situations where the designers themselves can experience the situation, thus using themselves as tools in the design process.

Increasingly, participatory approaches are incorporated in service design. This perspective implies that the user should feel empowered, having control and ownership of the situation and information. However, the discourse lacks discussion on how this empowerment is integrated with the firm that will ultimately realize the service. Further, innovativeness is rarely discussed, but when it is, a more distant approach to the users is advocated, and the designer's sense-making and interpretational skills are brought forward (e.g., Verganti, 2009).

In the service management discourse, the rationale for cooperation is innovativeness and business success, preferably measured quantitatively. In the literature reviewed here the focus is on early idea phases in the development process that try to find new ways to incorporate new ideas from users and also to understand the extent of novelty of the ideas. However, little is said on how or if user involvement continues in the further development process, or about how the user-generated ideas are treated and further developed, how they enter into the development process, or how or if they are used for inspirational purposes. These different rationales to users involvement are summarized in Table 4.

Rationales for involvement	Information	Empathy	Inspiration	Empower-ment	Innovation
UCD	X	X	X		
Co-design/Participation	X	X		X	
Design driven	X		X		X
Traditional market	X				X

Table 4 Rationales for users involvement (based on (Wetter-Edman, 2012))

Summary

In this chapter the Design for Service framework was presented and detailed. Through the integration of service logic and design perspectives in Design for Service a position is opened up for understanding users value creation through methods paying specific attention to users experience and context. As suggested this regards both in understanding the present and proposing future service systems (value (co-) creating situations).

In line with the defined interest in designers' involvement of users in this thesis, the continued inquiry focused on how users are involved in the respective discourses that underpin Design for Service. Diverging relations to users in the design and service innovation literature were discussed, and the different rationales for involvement were examined. In addition, it was brought forward that service innovation literature does not attend to the position assigned to designers as an intermediary between the user and the firm. Accordingly a problematic situation is framed in regards to designers' contribution in this intermediary role. This will be the focus of the continued inquiry into the field where the following open question is kept in mind:

What is going on when designers act as intermediaries and involve users with the purpose of doing service design?

4

The Case: A service design pilot

In this chapter I describe the field context, the involved organizations and the project I studied as a case. In addition the initial analyses and findings are accounted for. In the final section the inquiry is reframed in correspondence with findings of the analysis

Background to the field study

The research project was initiated to explore what is going on when designers involve users in a service design project. Further, this quite open inquiry was informed by tensions brought forward in Chapter 3.

The criteria for the construction of this case, including the selection of companies, were initially presented in the application for funding. In this application we, as researchers, articulated the importance of a field setting as true to 'normal practice' as possible. This means, for example, that no research funding was allocated to the respective partners. The design firm was selected for their expertise and for being prominent spokespersons for user-centered design. The industrial company was selected for their interest in development of new service offerings whilst lacking experiences of using design competence for this purpose [23]. Although the research project was in some sense staged, the collaboration to be studied, the negotiations of the project conditions, and the activities that would be carried throughout were left to be decided and developed in more precise terms by the collaborating partners: the design firm and the

industrial company.

The staging consisted of putting the companies in contact with one another and framing the joint collaboration around the topic of user/customer involvement with a focus on service design, and in addition stipulating an activity that involved at least some customers and designers. The project that evolved was a collaboration that lasted over a period of 10 months (Dec 2009 - Oct 2010) with a workshop as the main activity. It included the initial project discussions, the planning process, the service design workshop, meetings following the workshop, and the final presentation for the client (see fig. 4-1).

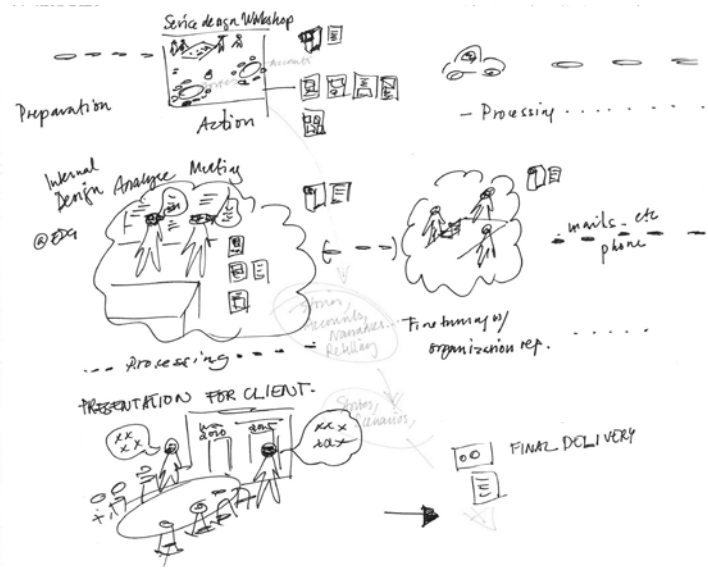


Figure 4-1 The different activities in the studied service design pilot

23. Due to the economical crises of 2008-2009 the initial industrial partner in the research project had declined further collaboration and therefor I was put in a position to quickly find a replacement organization for my study. Luckily a person from the steering group in the research project had changed positions and was aware of the interest in service and service development in The Company. He put me in contact with the Division Manager for Aftermarket Service and Parts who generated their participation in the project.

Prior to the project itself I conducted interviews in both companies and continued to do so until after the final project meeting, which I will describe more in detail below. In the following sections I first describe the partners in the overall project, some of the research activities, and then describe the development of this specific project.

The industrial organization – The Company

The company was founded on the basis of the founder's innovative patent that reformed the dairy farming business. The company holds a special position in the industrial history of Europe and the transition from a manual to an increasingly industrialized agricultural tradition. Technical inventions and innovation have remained important in The Company. At the date of study it had 35 local sales organizations and operated in over 100 markets.

The Company is a full service supplier to farmers, and develops, manufactures and distributes equipment and complete systems for milk production and animal husbandry. Equipment for milk production produced by The Company ranges from vacuum operated milking machines for a farmer with only 35 cows to systems that can handle massive heard sizes of 5 - 10 000 cows, including systems for herd management regarding reproduction efficiency, cow health and feeding. In addition these systems need regular maintenance service and occasionally require emergency service. The company develops and sells products and service. The service is specifically handled by a central service division within the company but provided to the customer through a local service organization. The central service division manages the general dimension of the service and in addition, spare part management, service protocol preparation etc., are developed and maintained. However, the people that carry through with the services are organized in a parallel sales regions unit, and to some extent are independent dealers in some countries. My involvement with the organization has been limited to the business area of Aftermarket and Services and the specific division that 'owns' the development of new services.

The Company's New Service Concept: Launch and further development

In February 2009 the organization launched a New Service Concept (NSC). The new service strategy was presented in talks and workshops featuring the plan for implementation and roll-out, including new service protocols and other documents, clothing and CRM system. The concept was communicated externally as a single feature, but internally consisted of three parts: *Connect* - planned maintenance service, *OnTime* – emergency service, and *Expertise* – knowledge based services such as consultancy. The latter was the least developed, and these were the concepts discussed as themes for the future design workshop. (More recently, in 2013 these three were openly communicated under different names as three distinct service offerings.) Members of the organization spent considerable time leading up to the development of this service concept.

I first encountered the organization at the NSC launch and spent the next six months, February to August 2009, conducting 12 interviews with persons in various positions in The Company who had been part of the launch and previous service development processes. In addition I had two main informants that I frequently talked to: Christopher the Service Division Manager, and Walter, Business Developer and also the person responsible for the service design pilot project. My inquiry focused on how the process had developed, who had been involved, internally and externally, and to what extent they had worked with customer/user involvement. The latter question was actually my main focus, but coming to understand more about the company's service development processes became an eye opener in at least two ways. First, for me it came as a surprise that they barely included customer/user involvement, at least not proactively in the sense that I thought about it. That caused me to question my assumptions of user involvement as something both well recognized and used. Second, and maybe more important, by posing this question I altered something within the organization OR in the minds of my interviewees; I was no longer only an 'objective' researcher looking into the organization.[24] Something happened during the initial round of interviews in the spring of 2009: when I returned about a month later

24. As if this ever would be possible or even to wish for to be like the classic fly on the wall metaphor- as Czarniawska (2007) says: What happens to the fly once noticed?

one of my main informants proudly showed me a presentation. The presentation covered the plan for a new development project that included customer input as a cornerstone. Previously this had not been articulated in these presentations that were mainly about presenting the business case.

These early interviews served mainly as a pre-understanding of how the organization considered service and service development and the role of the customer therein. My conclusion, also told to the company, was that the development of the new service concept was driven by an internal logic based on identified best practices from different markets and from an internal perspective. The customers' voices were present only through a series of internal interactions in the organization in what could maybe be called a whispering game: a customer said something to sales person, taking this further to his regional manager, which continued to the person responsible for the local sales organization, maybe through a designated forum, it could eventually reach someone responsible for service development see Figure 4-2.

Figure 4-2 Description of the 'whispering game'.

Although several of the people involved in service development had previous experience of working as a service technician and thus also being close to the customers, the direct involvement of service technicians or customers was not part of the current practice. During a meeting with AllDesign Walter explained the relation and possible access to the customers:

> We try to get to meet the customers but it is not that easy, we need to ask permission, and we need to have a good reason to ask permission. Because there are good reasons and bad reasons. But that we just should hang around with a farmer is not popular. (Participant Observation, December 11, 2009)

As a substitute for direct involvement the main input was a customer survey that was conducted every other year, which resulted in a numerical value as customer surveys frequently do: a number that either was a little bit higher or lower than the competitor's number, or what it was in the last survey. Although the customers generally were satisfied, the number said very little about *why* it was higher or lower, or why the customer was satisfied to a higher or lesser degree.

In the research project it was stipulated that there should be some kind of joint activity between the industrial company, their customers, and designers, but no details were provided. After the initial interviews and discussion during the spring of 2009 it was time to decide what the activity should be, and what it should be about. Following the review it was suggested that the pilot project (as it had been named) should focus on gaining deeper and more direct understanding of the customers and what they perceive as value creating activities. The customers in this case were defined to be farmers with Automatic Milking Machines (AMM).[25]

The design firm – AllDesign Agency

Established in the 1960's based in industrial design, ergonomics and deep knowledge in user research, the firm today spans more than ten design disciplines and has around seventy employees in offices on three continents. In both academic and popular writings about the firm the human-centered design legacy is brought forward. The company's philosophy is to take the user's perspective equally seriously as the aesthetic competence integrated in the design profession

AllDesign's design practices during the first 20 years centered on the product while paying extensive attention to the use situation and the capabilities of the people using the products. In so doing emphasis was put on the design process and integration with other disciplines such as

25. For further reading about AMM see (de Koning, 2011).

ergonomics and engineering.

In sum, AllDesign is based in a user-centered industrial design tradition where multidisciplinearity has been a driver of the firm's success. During the past 40 years the business portfolio has changed from wheelchairs and grips through welding helmets and branding projects to increasingly involve interaction design, service design and business innovation. This change implies that there has been a change in what is supposedly the deliverable and also the designers' skill set. This shift can be seen as a shift from a delivery mode working outside the company to a collaborative mode, working with the company, stakeholders, consumers and other expertise (Clark *et al.*, 2012).

The design agency now talks about ergonomics in three dimensions meaning that physical insights such as ergonomics are brought forward as the basics, complemented with what is framed as cognitive and emotional insights.

AllDesign, service design and the research project

With this extensive background in user-centered design, AllDesign was selected as an experienced partner for exploring how designers involve users in service design. However, when the study started AllDesign did not have a pronounced focus on service design although they had worked with several explicit service design projects and with interaction design for many years.

In the first part of my study I interviewed several of the designers at AllDesign and during the project more specifically followed Anna, one of the directors of design strategy. We have had continuous contact over the years and discussed both specific questions related to this particular study and more general developments in the field. Anna, also took part in the ServDes conference in Linköping and Service Design Network conference in Berlin, both held 2010. Until the appointment of a designated service design director in 2013, she was the person taking responsibility for service design within the company. In the interviews carried out in 2009 on the topic of service design and user research, the designers identified themselves as service designers although the discipline was not well defined at the time, and this was, as mentioned, not a distinct offering.

During the spring of 2013 AllDesign engaged in open breakfast seminars and posted a positioning statement of service design. In this positioning

statement they argue service design to be a catalyst to customer orientation and further state six principles of service design. The principles are: 1) learn, 2) bring to life, 3) engage, 4) sense making, 5) explore and finally, 6) scale and sustain. All six principles focus on how to incorporate customers and their perspective in the development of new service. Unlike earlier process-oriented descriptions of design, they explicitly argue the principles are to be seen as an approach to service development, not phases of a process.

The studied case: A service design pilot

As mentioned, the beginning of the research project in 2009 was mainly about getting an understanding of the two companies and the field of service design. I also discussed at length with the industrial company what a potential service design pilot could be about. The first meeting between the two took place in December 2009 at the premises of AllDesign. Present were Walter, the appointed person from The Company and two designers, Anna and Eric, both design strategists. Although AllDesign was the assigned partner in the research project, Walter wanted to discuss a possible collaboration with a couple of other design firms. This was done and I followed these discussions as well. In my opinion this procedure was mostly about having some kind of control and the project partner not being set up as in a blind date-like condition. This also reminded me about the importance of trust on both corporate and personal levels. In the end AllDesign was selected due to their experience and the collaboration begun to form in January of 2010.

Negotiations and preparations of the pilot

The first meetings in December 2009 and January 2010 were about finding a common ground, and deciding the more explicit focus of the activity. Walter explained the specific situation of their customers and their service organization. For example, once the farmer has made their choice of robotic milking equipment they are in a long-term relation, there are no other service providers as of yet. Walter mentions the results from the most recent customer survey and phrases their concerns like this:

> So it is probably some other, soft factor and then we have this, service. It's something in the service that… well they don't have the wrong car – right? … we don't think so. It is something here that is not in alignment, and that is this that we would like to understand better. Understand and create a … product around this and what do we mean with a product? It is like… well it is difficult to describe, but how it goes, I don't like this with the service journey, because that simplifies. This is quite a complex journey. (Participatory observation, December 2009)

This quote exemplifies that The Company is confident that the customers have the right product [a car]. However, there must be some other issues, something that has to do with the service that comes into play. In addition Walter does not appreciate the notion of journey, frequently used in service design, although he emphasizes the development over time 'how it goes'. My understanding is that the notion of journey risks simplifying and reducing the complexities of the farmers' situation and relation to The Company.

The AllDesign team now consisted of two design strategists, Anna and Victor, both trained industrial designers in the 1990s in an artistic tradition. Both are aged around 40, based in the Capital and not particularly familiar with the farmer's way of life. Both developed their careers from product design towards strategic design and design management projects, where service design had been part of the portfolio.

In the introduction of AllDesign they brought forward the three layers of ergonomics mentioned above, 1) physical, 2) cognitive and value, and 3) emotional, as fundamental in everything they do. They further presented the character of design research, and what the expectation could be depending on the method used (see fig. 4-3). Different set-ups such as observations, interviews or collaborative workshops were discussed together with the implications for the results. Later, in February 2010, a pilot project proposal was sent from AllDesign to The Company. The project was framed as a pilot project with the specific aim to find service development opportunities through learning more about the customers with automatic milking machines.

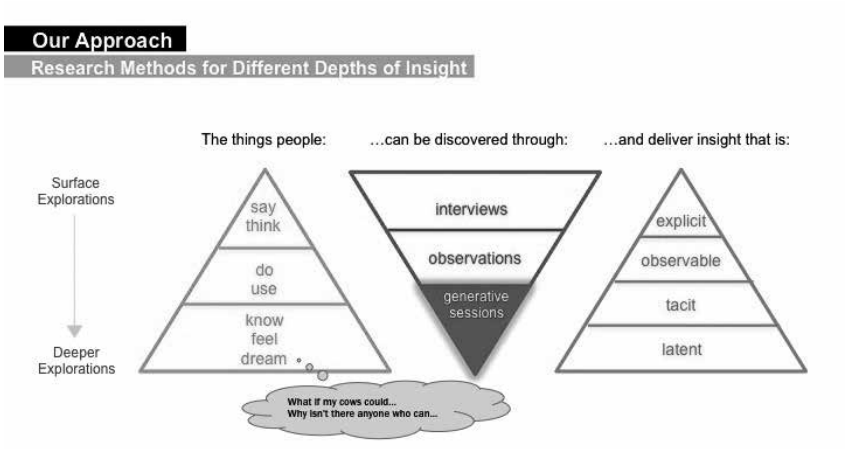


Figure 4-3 Part of slide from proposal presentation, Research methods, Feb 2010 . Source: AllDesign presentation

The basic idea was to find a method that could be repeated in several other markets following this pilot, and then potentially accompanied by other types of research such as observations on the field. The proposed format was framed as generative sessions see fig. 4-4.

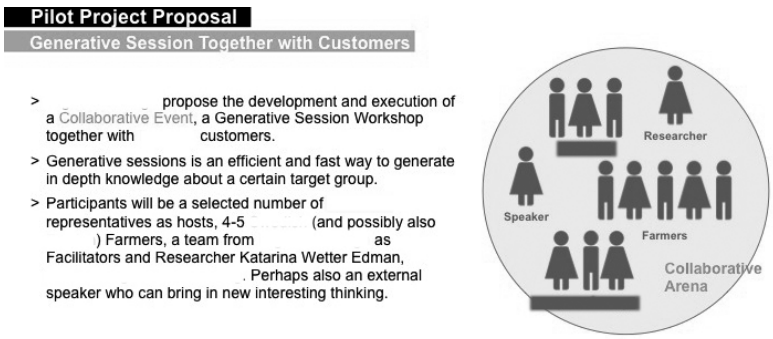


Figure 4-4 Part of slide from proposal presentation, Generative sessions, Feb 2010. Source: AllDesign presentation

The proposal included a repeatable research format where the skills used to facilitate the event would be transferred to the company over time. At the same time this would limit the risk for The Company as they would get to know more about the methods and not become dependent upon consultancy services. After some further discussions regarding pricing and immaterial property rights a 'go' decision to conduct the pilot workshop was made at the beginning of March. AllDesign was responsible for developing the explicit workshop format and The Company for finding the best people to involve internally, to decide on the venue, invite farmers and potentially service technicians, and organize other practicalities around the event. These preparations, specifically those internal to The Company, seemed to be complicated or at least to take time. It was not until mid April that the work picked up the pace again and three preparatory meetings were held. The first meeting served to give the designers a broader knowledge about the company, and what was known about the customers, for example, a product function specialist was invited to share information about how they currently look at customers and what they do through filming and similar activities when customers interact with specific parts of the product. Another explicit aim was also to develop a strategy that would give the momentum within The Company for this project to have a life after the pilot phase.

The second and third meetings focused on the more detailed planning of the workshop. The date was set as June 11th and the venue decided. The Company side now included Fred, a regional sales manager involved as the link to the farmers and also for discussing more details with AllDesign. Decisions were made to only include farmers at this stage and exclude service technicians. The reason was to have a good group of fairly small size, but also not to have the both sides at the table at the same time. It was acknowledged that the service technicians' perspectives would be very important to include later on in the process.

The AllDesign team by then had been augmented with Richard, an ergonomist with special knowledge in collaborative methods. He proposed a method called Landscaping for the generative session. The core of the method, according to Richard, is images that represent various events or situations. The exercise is to jointly map how they relate to each other and to simultaneously describe various aspects of these situations. Walter proposed using the company's image bank, which was accepted,

and they continued to discuss what situations should be in focus.

It was decided that the situations of interest should concentrate on the relation between the farmer and service technician, focusing on situations that included complex events rather than specific activities. The discussion topics were to cover emergency service, regular service, casual meetings between the service technician and farmer, and in addition invoice and service protocol procedures. The collaborative planning process then slowed down a bit, escalating at the end of May and beginning of June, closer to the workshop date being set to 11th of June.

In the request for images sent to The Company by Richard late May the following six situations were proposed as bases for discussion in the workshop, and they were the situations used: 1) before service, 2) service, 3) invoicing, 4) emergency service, 5) purchase of automatic milking station, and finally 6) work at the farm. The designers were granted access to the image bank of public images, which facilitated the procedure, but of course implied a certain type of 'glossy' communication material.

The firms carried on with their respective responsibilities with regard to the planning and agreed on the presentation through e-mail conversation. The night before the workshop the team gathered in a hotel close to the venue, to do the last detailed planning. The plan for the workshop was that Anna and Victor would work with the farmers, while Richard would be there to manage the process. Both Walter and Fred from The Company would take part in the discussions, and Walter would also introduce the background to the pilot study. In my role as an observer who initiated this entire project, I would film the activities and pose some questions, and then just 'hang around.'

The Pilot Workshop: The perfect service encounter[26]

The workshop location was selected with regards to a reasonable travel distance for the participating farmers. In addition the hours, 10.00-15.00, were planned to allow a time span that meshed with the farmers' duties. The site was remarkably suitable for the purpose of exploring

26. Title at the first slide of the presentation introducing the workshop at the final presentation meeting. My translation.

farmers' experiences since the conference room was on the second floor in a barn. The walls had large windows that made it possible to watch the cows as they went about doing whatever cows do. Not least important for the designers travelling from the Capital, this was quite an exotic location for a workshop, not to mention the olfactory sensation of being in a barn.

The workshop participants were seven farmers, all men, aged approximately 45-65, the two company representatives who had taken part in the preparations, and the three designers. The farmers had been selected and invited to participate through Fred, their local sales manager.

All farmers in the workshop but one had employees, having a livestock of around 160-200 cows. They had all owned other milking systems with the same brand previous to the installation of the Automatic Milking Machine (AMM). The introduction of an AMM made it possible for them to approximately double their herd sizes. One selection criteria of participants was that they had a long experience of automatic milking and thus also a long relationship with the client organization.

Description of workshop method

As mentioned above, Richard had proposed a Landscaping method. When I asked about the method he told me that it was inspired by the Landscaping game methodology and provided me with an academic reference (Brandt, Messeter, & Binder, 2008) as well as with a slide describing how they had used the method previously in AllDesign. The explicit aim with the Landscaping method, according to the article, is to gain a deeper understanding of the users/customers through design dialogue. The design dialogue is characterized by a collaborative set up encouraging the users to tell stories through play with different artifacts. Afterwards the participants jointly construct a landscape of the matter of concern.

In this particular workshop the situations were predefined, and the farmers were asked to remember and account for a particular good experience and another bad one in relation to these situations. This could be seen as using more of a critical incident technique (Flanagan, 1954) than open inquiry, although the designers did not mention or reflect around this. Further, the artifacts in this case were images that had been pre-selected with the aim to enhance and bring the descriptions to

life. The structure of the developed workshop format for the service design pilot was to work with the six pre-defined situations in two groups in three parallel sessions. The parallel sessions lasted 30 minutes and in between them the teams joined around a large table where the situations were mapped out in a landscaping like manner. The aim was to have a collaboratively constructed Landscape of the farmers' stories and experiences by the end of the day.

The course of the workshop

The day started with a cup of coffee and a cinnamon bun while the farmers were arriving. Afterwards Walter welcomed and introduced the background and aim of the workshop, described briefly what would happen, followed by an around-the-table presentation of all participants. The designers presented themselves and the design firm AllDesign, describing how their background in user research for product design also was applicable for service development.

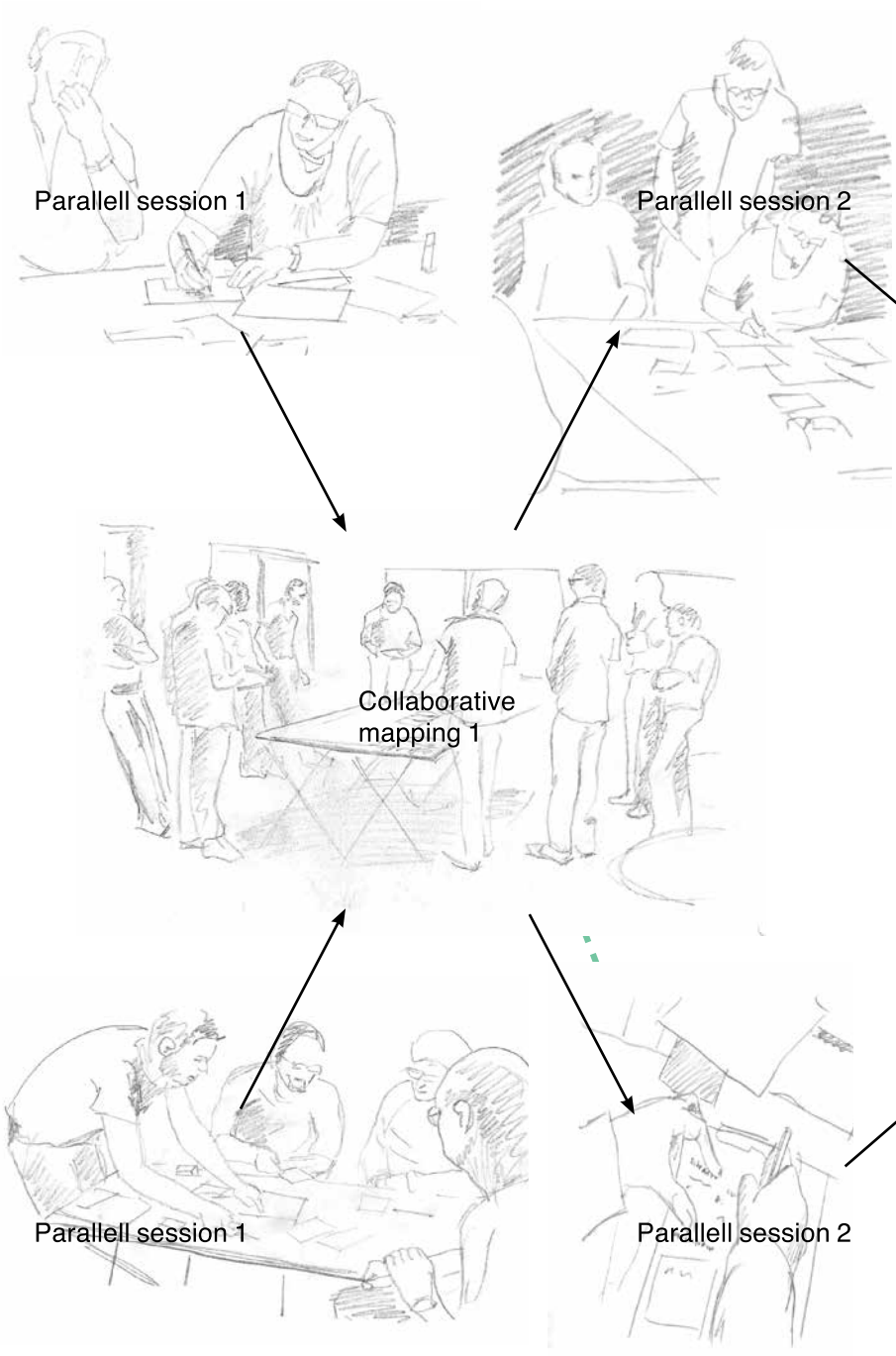
Richard introduced the workshop and how it would be performed in more detail, see fig. 4-5. He emphasized that he wanted the farmers to focus on their experiences of being a farmer with an AMM in the various situations that would be discussed during the day.

The group was then divided into two teams with 3 and 4 farmers respectively, one company representative and a designer in each team. The two teams sat apart from each other, but in the same room. Richard, acting as the process leader, moved freely between the teams.

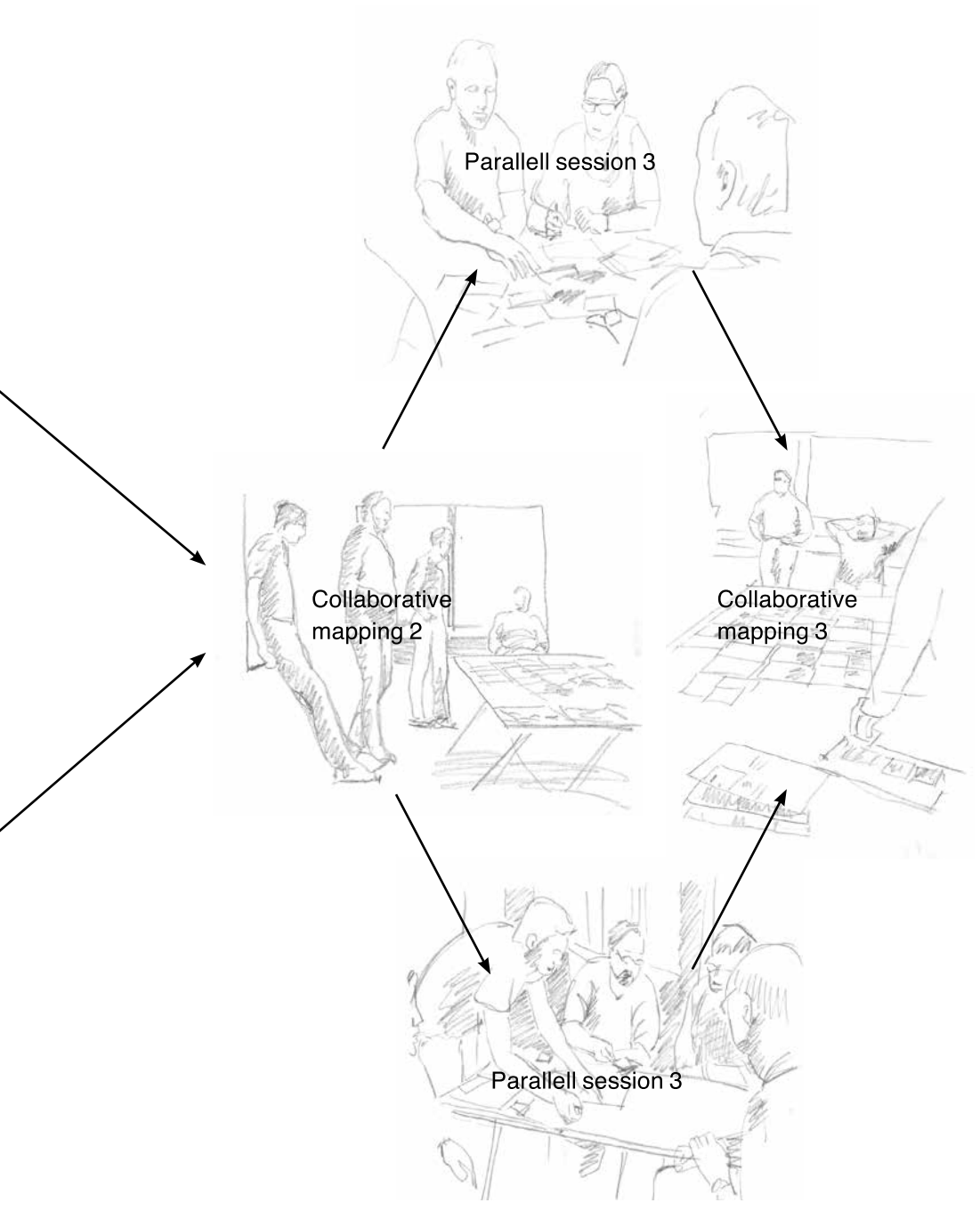
The formal role of Anna and Victor was to introduce the situations, facilitate and note the conversation in accordance with the workshop format on preformatted sheets of paper. The situations that were read out were prepared to cover before, during, and after service situations.

The 'Service' situations were formulated as follows:
Service is about the activities during and around a service.
How do you experience that the service of The Company works?

Describe situations:
Two typical situations where the service encounter works fine.
Two typical situations where the service encounter doesn't work.



4-5 Illustrated workshop process.


Parallell session 3
Collaborative mapping 2
Collaborative mapping 3
Parallell session 3

The 'Before Service' situation was formulated as follows (my translation):

Before service is about activities that take place on the farm before service.
How do you experience the preparations and activities before service?
Describe situations:
Two typical situations where the preparations work fine.
Two typical situations where the preparations doesn't work.

The prepared sheets of paper had preprinted headings and a half page blank for an illustration. The headings were: Situation, Subject area, Title, Description in text and finally Description with images. The teams worked in parallel in three sessions on the six prepared situations: before service, service, invoicing, emergency service, purchase of robotic milking system and finally work at the farm. Thus each group covered three situations.

The designer in each team initiated the session by reading out loud the situation [now referred to as The Situation]. Thereafter the designer encouraged the farmers to talk about their experiences in relation to this situation. The farmers were asked to bring up two good and two poor experiences related to each situation. Oftentimes several situations were brought up and discussed and the group then decided which ones should be noted down and brought to the collaborative session.

The farmers knew each other since they all were active in the same geographical area, and to some extent had experiences with the same service technicians performing various types of services at their respective farms. They seemed at ease to talk about their experiences, although they did not pay attention to the images to any large extent. The designers made notes on the prepared sheets of paper and an image was added, selected by the designer and/or farmer, one for each specific situational experience (See fig. 4-6).

The physical outcome from the group sessions was these pieces of paper with text and pictures framing positive and/or negative descriptions based on the farmers' experiences [now referred to as Instantiation(s)]. After each round the two teams gathered around a large table, the

farmers holding the descriptions. Richard asked one person at a time to describe the instantiation(s) they had in hand, probing them to develop further if needed. He then asked if the others agreed or had something to add. The farmer was then asked to place the instantiation on the table where it fitted into the landscape. However, the procedure was that the farmer gave the instantiation to Richard, who placed it, or the farmer placed it and Richard repositioned it. The designers made extensive use of sticky notes both in the group session and in the joint sessions for additional records, sometimes adding a note to an existing description or keeping them on separate papers for their own documentation. This procedure was repeated three times. See figure 4-5 for an illustration of the various sessions.

When all the instantiations were mapped Richard asked if there was anything missing or something someone wanted to say specifically, but nothing new was added. The full landscape consisted of 28 instantiations, and was laid out as in figure 4-6.

The day ended with a concluding discussion, coffee and summary of the day, and then the farmers went home. The day was documented through audio-video recording with two cameras. First one covered each group, and then both moved to cover the collaborative sessions that were thus filmed from two angles. In addition I took a large number of still photos. The designers documented the final landscape of instantiations and then the material was collected, together with the sticky-notes, to take home for further analyses and interpretation.

Post-workshop interpretation

After the workshop Walter and the designers drove home to the Capital and I returned to my place. Later I learnt that if there was one time I should have been "a fly on the wall" it should have been during that drive back, or at least had the discussion recorded, but neither the designers nor I had anticipated that the feedback from Walter would be so intense. After some time Victor started to take notes to capture the main thoughts and reflections from Walter, as the first debriefing of the workshop from the client's perspective. The main things that came up were ongoing projects that touched at issues that had been discussed, the service strategy of the company, vision 2020, and new ideas that

Figure 4-6 Final landscape, reconstruction according to photograph


Situation
Ämnesområde:
Titel
Beskrivning i text
Beskrivning med bilder:

could be related to this. There were a lot of things spoken about that were not captured, and after a day of workshops the designers were tired so they couldn't claim to have captured all that was said.

The first formal interpretation meeting was held a couple of weeks after the workshop at AllDesign's premises, and this was an internal session. Anna and Victor provided the main interpretation during a full day's meeting, and at the end of the afternoon Richard joined for a briefing of what had been 'found'. I observed and filmed the meeting, watching how they used the instantiations as reminders from the workshop together with the sticky-notes that were on separate papers.

The notes taken in the car were used as reference points in the discussion. Anna and Victor told and retold accounts that they had heard; they also seemed to try to play out short scenarios in their attempt to understand what these were about. They used the white board to note down interesting aspects but soon moved to the computer to create a digital mind-map, see fig. 4-7. In this mind-map topics where organized in relation to opportunities and tentative themes, first in relation to situations, then to opportunities.

Figure 4-7 Anna & Victor in internal design meeting

The following day, first of July, a meeting with Walter was held at AllDesign's premises where a draft of the insights and opportunities were discussed and the mind map was the main input. From the slides on the draft presentations, the focus points for AllDesign to figure out were first, to understand more about the 2020 vision and its potential relation to this particular project. Second, to discuss what value means to The Company and the customer respectively, and where the value actually is created.

After the meeting the insights were shared and updated between the designers and Walter a few times. Then vacation time followed, and the project continued in mid August when preparations started for the final presentation of the pilot study. This included developing a presentation that summarized the findings as a delivery and setting a date for this occasion. However, it took time to get the 'right' people to the table. Meanwhile the presentation was shared between the partners, mainly through email, and discussed in a meeting.

In the early versions the focus was on articulated insights and potential opportunities. There were proposals that challenged the structure of the organization, aiming at the 2020 vision, as well as ideas that included several different organizational units. During this phase Walter repeatedly stated that they could not propose changes in parts of the organization other than the one that they "owned", after market services. Effectively the division of after market services did not own the delivery process either, so they were in a sense put in a corner. It was therefore extremely important that the people that did own these processes take part in the presentation of the pilot. What they could do, said Walter, is to present a vision and hope that they get buy in from others.

In a preliminary version of the presentation from the end of August the focus was on what was actually said in the workshop in relation to the various situations, two slides containing descriptions of a day in the farmer's life, one present and one future, and there are four slides presenting the identified themes. The total presentation contained 59 slides. In the version from mid September the scenarios were spelled out, there was a name given to the farmer [Steve] and to the service

technician [John] and the two scenarios were represented in a total of 10 slides. Some iterations later Walter had also involved Christopher, the Service division manager, and the final presentation consisted of 28 slides, of which 10 slides represented the scenario, and an additional 24 slides were an appendix. The presentation was cleared by Walter to be distributed and sent out as a pre-read ahead of the meeting.

Project presentation: Service Design – Discovering Service Development Opportunities[27]

To summarize: the final presentation took place on 1st of October 2010, barely 4 months after the workshop was conducted at the company site. For the client organization it was important to have the so-called 'right people' at the meeting for the ideas and insights from the workshop to reach the relevant audience.

Christopher, the Service division manager, hosted the meeting with support from Walter, the person responsible for the pilot project. Six other persons from the company were present: the manager for the Local sales organization, the person responsible for marketing in the Norhtern European Region, the person responsible for AMM milking on a local level and coordinator on northern European basis, the person responsible for the sales organization in the National sales company which has direct contact with the service technicians, and finally the person working as global service coach. In addition, Fred, the sales manager who had taken part in the workshop, was also present. The two designers Anna and Victor, who had participated in the workshop and the following work, jointly presented the outcome with the support of the slide presentation. I attended as an observer, took notes and audio recorded the meeting.

Christopher, the service division manager introduced the meeting and then handed over to Walter who presented the background and purpose of the service design project, who in turn gave the floor to the two designers. Anna and Victor started with a short introduction of themselves as design strategists, followed by a short introduction of AllDesign and made the case for their experience in user centered research and design for products to be as relevant for services.

27. Title at the first page of presentation introducing the final presentation.

> This type of co-creational exercises, as this is one, is very effective when working together with the customers. We have different tools that put the customer in a specific situation and with an image and discuss this situation, that can be further expanded, and we get a richer situation. Then we use this as backdrop in the design process, and it becomes creative material so we have something to lean on. Through this we can give our clients relevant advice and recommendations. (Participatory observation, October 1st 2010)

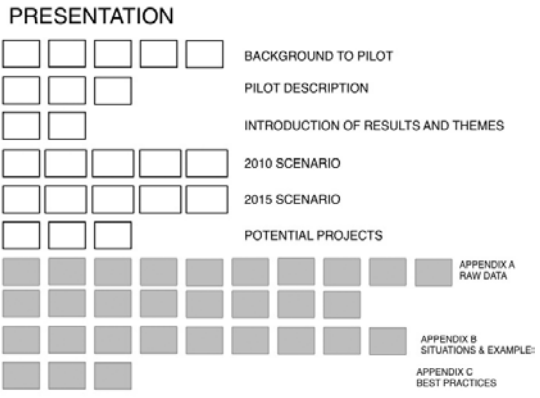


Figure 4-8 Dispostion of delivery presentation

The presentation included the background for the service design pilot, the user research workshop and the identified themes. This was followed by the outcomes of the research and possible solutions for the future in the format of two scenarios. In addition there were suggestions of opportunities and possible future projects. The presentation ended with an appendix including the so-called raw data from the workshop, some examples of best practices, and so forth, see fig. 4-8.

The main findings were presented in the scenarios. The first scenario *A day in a dairy farmer's life 2010* presented insights and outcomes from the workshop showing non-favorable and favorable experiences from the farmer's perspective. The second scenario *A day in a dairy farmer's life 2015* presented a possible future from a farmer's perspective, where ideas that solved the previous concerns had been implemented. Both scenarios were structured around five situations, similar

but not identical to the ones used in the workshop. The five situations were presented in the following order: 1) emergency call, 2) investment, 3) service booking and 4) the day of service. The fifth situation was called *At the desk in the evening* in the 2010 scenario, and named *Outside the barn* in the 2015 scenario.[28]

The designer's presentation was interwoven with intense discussions and further explanations with the participants in the meeting. Most intense discussions happened during the presentation of the 2010 scenario. During this presentation some of the participants engaged in discussions sharing their own experiences, proposing solutions and even more direct ideas. The 2015 scenario was presented and received in a calmer and more coherent fashion. After the meeting a short summing up discussion was held at the manager's office ending with the promise to come back shortly with further feedback and possible continuation.

However, time passed. Walter, the person responsible for the project, who really was a service design champion, and could have become an even stronger one within the company, was given other responsibilities as manager for a large project, and momentum dissipated. So there has been no continuation in collaboration with AllDesign. However, I know that some of the issues that were brought forward have been subjects for internal development and some others are still being discussed at the corporate level.

Analysis and results – finding stories

Although I had taken notes, participated in most events, and continuously reflected upon what happened during the project, it was fall of 2011 before I engaged in the more focused analysis. This was about a year and a half after the workshop took place and approximately a year after the end of the project with the final presentation. I approached the material with an as open mind as possible, inquiring into what was going on in relation to the question developed in the introductory chapters to this thesis:

28. I present these scenarios more in detail in Chapter 7.

What is going on when designers act as intermediaries and involve users with the purpose of doing service design?

I started to look through the vast material of notes, recordings and documentation. I paid particular attention to the videos from the workshop and the internal analysis meeting: this was all in all about 12 hours and 40 minutes of videotapes. I decided to focus on the videos since in these events the designers first interacted with the users, and second, worked internally with the outcomes from the workshop and prepared for what should be presented to the company. I thought that through this focus I could get clues about what was going on. I familiarized myself with the material by looking through the video material in an exploratory way. I tentatively coded and partly transcribed sequences that I reacted to as interesting or surprising in regards to the quite open research question and the theoretical framework (Banks, 2007; Charmaz, 2006)[29]. For this purpose I used video transcription software, Transana that has functions for coding, collecting and organizing clips.

When I looked through the films from the workshop and specifically from the design analysis meeting, what stood out was the attention the designers paid to the users' stories and accounts of experiences and situations. I had expected them to work in more visual modes throughout the whole process. The method by which the designers analyzed the workshop consisted almost entirely of references to the users' stories, recapturing the accounts and re-fabricating the same in a testing matter during the internal design analysis meeting. The two designers worked with the accounts in iterative ways, proposing and reframing them together, similar to what is usually done through visualizations, according to the design literature. It seemed like the accounts and stories became the design material. The material they principally worked with was the outcome of the workshop, the instantiations. I wondered: *What did the designers pay attention to in these for the purpose to have something to later work with?*

The designers also choose to deliver the outcome of the service design workshop to the company as two stories, or two scenarios: one that

29. For more detailed description of method and analyses see Chapter 2, Research Approach and Methods

presented the existing situation and one that presented a future where ideas and changes had been implemented. This surprised me! Of course there were visuals that supported the written and spoken words but the main outcome of the design project was these two scenarios. I wondered: *Was it the scenarios per se that was the design object, the deliverable, or what they were about, what they told?*

Although I had taken part in almost all the activities as they happened, the stories had not stood out the way they did when I re-entered the material for a more concentrated form of analysis. Maybe what struck me in this phase had to do with the course I took at about the same time with Barbara Czarniawska[30]. This course opened the door to me on narratives and narrative knowledge. Or maybe the reason was something else. Never the less, the more I looked at the video recordings the more evident the use of stories became, and also the obvious lack of physical visualizations.

Reframing the inquiry – Determination of Problem - Solution

The initial inquiry can be related to in a multitude of ways. In my reading of the material, what stood out was the extensive use of accounts and stories in the workshop, during the interpretation and in the final deliverable. In addition, the design work was not specifically visual, and did not specifically use artifacts in the descriptions of what could be, as was to be expected according to the published literature. So a quick answer to *What was going on…* would be that the designers made use of the users' accounts and stories instead of visualizations and artifacts throughout the design work.

Several assumptions about service design are challenged through the initial findings in this case description. These findings have implications for how to understand what the designer do, contribute with and what can be considered as design practice in the intermediary role. Thus the following questions are articulated:

30. Organization scholar Barbara Czarniawska has explored and written extensively about narratives and organizations, for a comprehensive discussion see e.g., Narratives in Social Science Research (Czarniawska, 2009) my interpretation and use of this approach is described in Chapter 5 and 7.

1. Can stories and talk be understood as design material?
2. Assuming that designers do work with stories as design material: How can these stories be understood and analyzed?
3. Assuming that designers' contribution lies in a deliberate change of the design material throughout the process: What is changed between the accounts in the workshop to the final scenario?

In the following chapter I will address the two first of the three questions stated above, the third will be explored in Chapter 7. I will do this by returning to literature on design material and design practice, and by turning to narrative theory for exploring concepts relevant for understanding the accounts, stories and scenarios that according to the first analysis made up the designers work.

5

Theoretical perspectives on design materials and narratives

In this chapter I deepen and develop the theoretical considerations brought forward by the field study presented in the previous chapter. I return to the realm of ideas to explore the issues raised through the first analysis of the field material. In my analysis of the workshop it became evident that what the designers actually did was not what previous assumptions based in literature suggested. This chapter will explore how concepts related to stories and talk as design material and narrative theory can be used in the continued inquiry.

Design practices and design materials

The studied workshop can be seen as one example of a co-design situation, as mentioned the implications for design practice include among other things the an increased focus on how to manage and set up the collaborative events (Botero, 2013; Clark *et al.*, 2012; Sanders & Stappers, 2008). In turn that also affects the role and perception of what the contributions of designers contribute with in collaborative design settings. Instead of being the competence that controls the outcome, the designer's role can be described as leading and facilitating the activities, as well as producing material artifacts, and thereby establishing the situation where the interactions take place (Han, 2010).

This situation, where the interaction takes place, can be defined as

a 'co-design space' (Sanders & Westerlund, 2011). Botero (2013) presents in her dissertation, *Expanding design space(s)*, a set of additional meanings of 'design space'. 1) The more general understanding is for describing that there is 'freedom to choose from many options and to explore alternatives', 2) it can refer to all available design relevant information 3) to describe a conceptual territory that expands and contracts throughout the process, 4) connote increased scale and complexity as well as 5) in line with mentioned above the role of space, place and materials. Further, Westerlund has conceptualized design space as "territory of possible solutions" (2009, p. 35).

The design space can thus be seen as a material in and for design practice, and, according to Botero (2013), different design practices have different views of what the design space can include and concern. She proposes a continuum from *Form giving* which includes a single designer, the idea of the user and is mainly focused on the object as a physical object, through *Using*: that includes a design team, user and context, and to some extent the idea of the outcome/object in use, and *Participating*: starting with an extended design team, through a collaborative process with prototyping also extends to a conceptual use situation, and finally *Evolving?* including resources and evolving design practices, extends into the use situation and beyond. In this way the design space also attends to design in use or 'design' after design.

The implication of seeing designing in this continuum is that the design space is dependent on the perspective used in the design work, rather than the expressed objective of the project. I would position service design in general as 'using' and 'participating', although the character of service as has been discussed may be considered 'evolving', since services "are not finished products when leaving the hands of the designers, but rather can be seen as continually 'lived by people (users and providers) over time." (Eriksen, 2012, p. 56).

Materialized talk as design material

In the analysis of the service design pilot study presented in Chapter 4, the stories seemed to be the 'design material'. In the workshop the aim was to get the farmers to tell stories about their experiences and for the designers to capture them in one way or another. In the post-workshop

the designers retold and reworked the stories into scenarios.

Drawing on Schön and his theories of reflective practice, including also his studies of psychoanalytical practice Eriksen argues, "Material in (co-) design situations can be both talk and tangible." (2012, p. 119). Interestingly, she foremost discusses 'talk' as design material in relation to the case explicitly framed as a service design case. Although talk exists in all kind of interactions, some co-design methods use tools that have silent moments, such as for silent brainstorming and/or evaluation. Seemingly the role of talk as design material was most apparent in the service design case.

Further Eriksen explores and defines practices connected to materialization in co-design:

> [First,] with a focus on the move from *materials* – through *materializing* – to *materialized*; second with a focus on how negotiating of meaning of content materials is an integral part of materializing in co-designing; third, with a focus on how delegation of roles to materials largely is a part of the organizer's planned *formatting* of an event; fourth, with a focus on how tangible *formats* and *content materials* merge in the process of *materializing* during a co-design situations, and lastly, how the invitation and introduction of new formats during an event can assist in a transformative process of *materializing.* (Eriksen, 2012, p. 245 italics in original)

These different practices, she argues, are present during a co-design event. After the event another process takes place, the process of *rematerialization*. Rematerialization is not mere documentation, but an interpretation and a process of "reflectively documenting insights, negotiations, issues, challenges ideas, etc." (Eriksen, 2012, p. 246). The rematerialization is preferably made with the various stakeholders involved in the co-design event, however, as Eriksen points out, this is most often not the case. Instead one or two people take on this responsibility and then become spokespersons for the others, resulting in certain biases and interpretations becoming dominant in the rematerializations, no matter how good the intentions are.

Relying on Eriksen, I conclude that talk and stories can be understood as design material. Further, the notion of design spaces as brought forward by Botero (2013) is helpful in situating the design practice and its

relation to the design material observed in this case.

Although the stories can be seen as design material, the task remains to find a perspective for understanding the stories per se, with the purpose of articulating in what ways the designers change them and if it is possible to say something about why stories are to be preferred over the visualizations that were to be expected. Here I turned to narrative research in social sciences for inspiration on how to approach the ways in which the stories can be understood.

Understanding design and stories through narrative research

The designers in this case were all senior and experienced. They did not mention explicitly that they worked or intended to work with stories or scenarios, although the selected workshop method pointed out dialogue as important element. The method proposed a physical landscape of artifacts as outcome, in this project the outcome was scenarios. Two questions are raised: 1) How can stories be understood as design material? 2) What makes stories more relevant as design material than the expected physical visualizations such as diverse mappings?

Part of being human is to tell stories of past experiences and to account of previous happenings and memories or future dreams and expectations. Sometimes these stories are developed and well thought out, other times they are spur-of-the-moment accounts without coherence. Narrative scholars argue that telling stories are a basic means for humans to create and negotiate meaning. Riessman suggests seven different functions for narratives. First, she argues that remembering the past is the most familiar narrative that "constitutes past experiences at the same time as it provides ways for individuals to make sense of the past": such stories must be considered in context since the audience who receives the story may interpret it differently. Second, narrators argue with stories, for example, in courtrooms. Third, all story telling involves persuading. Fourth, storytelling engages an audience in the experience of the narrator; here narrative invites us as listeners to enter the perspective of the narrator through modes of artistic expression. Fifth, there is an entertaining function to narrative, and sixth, she proposes that the

function of narrative to mislead an audience is often neglected. Finally, on a positive note, stories can mobilize others into action for progressive social change (Riessman, 2008, pp. 8-9).

Narrative research is a broad field with widespread roots, for example in literary theory, historical research and psychology (Czarniawska, 2009; Polkinghorne, 1988). Here I specifically draw on a narrative approach developed in organizational and educational research. In this thesis the narrative perspective is used as a method, as explained in more detail in the methods chapter, and also as a theoretical framework. In this section I develop the understanding of the different concepts and the framework used for further analysis, and thus approach this very rich and interesting area of research in a normative way.

Organization scholar Barbara Czarniawska introduced the narrative perspective to me in 2011 through a research methods course. She suggests that there are at least four forms of narrative research in organization studies: "a) as organizational studies written in a story like fashion ("tales of the field" as John van Maanen 1988 characterizes them), b) as organizational research that collects organizational stories ("tales from the field"), c) as organizational research that conceptualizes the process of organizing as story making, and d) as reflection on organization theory as a literary endeavor" (Czarniawska, 2002, p. 734).

The case in my study follows from Czarniawska's third form that as organizing is proposed to be a process of narration, so also could one see design. Design theorist Klaus Krippendorff (2006) draws on scholars such as (Bruner, 1986), Polkinghorne (1988) and MacIntyre (1984) connecting design and narratives/stories. From this he relates design and narrative in the following way: both are human creations, they are both essentially cooperative constructions, they are both told with the expectation of being understood, and lastly they both "enable their narrators and listeners to make sense of their worlds" (Krippendorff, 2006, p. 170). He further notes that the objects of design are not as easily reproducible as are stories, and the relation therefore is asymmetrical. This argument, however, relies on a view of the object of design as foremost physical artifact. Thus it is relevant to continue to explore this relation in the expanded context of design.

What constitutes a narrative?

Any text or oral account could be, and often is, interchangeably called a story or narrative. However, distinctions are needed for analytical purposes. Polkinghorne suggests, "narratives display the significance that events have for one another " (1988, p. 13), thus there needs to be a pronounced relation between events and actions represented in the narrative: there is a the temporal ordering and a suggested connection between the two. Further narrative and story as concepts could be used interchangeably, designating "the kind of organizational scheme expressed in story form" (Polkinghorne, 1988, p.13). Czarniawska (2009), however, distinguishes between a narrative and a story by arguing that the story demands a plot, whereas narrative could be just a temporal sequence of events while in a later paper Polkinghorne proposes *storied narrative* as a concept (1995). I will use narrative in the meaning of Polkinghorne quoted below, and emplotted narrative as story with a plot. I will use story only when designating field material.

> In summary, narrative is a meaning structure that organizes events and human actions into a whole, thereby attributing significance to individual actions and events according to their effect on the whole. Thus, narratives are to be differentiated from chronicles, which simply list events according to their place on a time line. Narrative provides a symbolized account of actions that includes a temporal dimension. (Polkinghorne, 1988, p. 18)

Plots are central features for understanding narratives and will be explored below. In addition to plot being the defining dimension, Czarniawska (2009) proposes two additional dimensions for narratives, the mimesis and the chronicle. The mimesis represents how does it look and allows the listener to make their own image, and chronicle is the dimension that represents what is happening in the account.

Thus plot is the differentiating aspect between a narrative and a story. But what does plot mean? The minimal plot can be summarized as a beginning, something in the middle that changes the equilibrium, and an ending in which an equilibrium is (somewhat) restored.

I rely on Czarniawska (2009, p. 19), using the working definition of a plot that she suggests, drawing on Todorov (1977).

> Todorov proposes such a definition of a minimal plot: '[it] consists in the passage from one equilibrium to another. An 'ideal' narrative begins with a stable situation which is disturbed by some power of force. There results a state of disequilibrium; by the action of a force directed in the opposite direction, the equilibrium is re-established; the second equilibrium is similar to the first, but the two are never identical. (1971/1977:111)

Polkinghorne provides a more expanded explanation, that also relates to the pragmatist way of reasoning:

> A plot is constructed in the realm of meaning, recording relationships among perceptions. The recognition or construction of a plot employs the kind of reasoning that Charles Pierce called "abduction", the process of suggesting a hypothesis that can serve to explain some puzzling phenomenon. Abduction produces a conjecture that is tested by fitting it over the "facts." The conjecture may be adjusted to provide a fuller account of the givens. The reasoning used to construct a plot is similar to that used to develop a hypothesis. Both are interactive activities that take place between a conception that might explain or show a connection among the events and the resistance of the events to fit the construction. (Polkinghorne, 1988, p. 19)

Bleakley (2005) suggests in line with the above authors that a plot structures a narrative by putting events into a sequence. In addition, he observes that tension is usually created through misfit between the elements of a story, such as agency, intention, means, goal and setting, and thus often makes the familiar unfamiliar. Narratives can be categorized within three different 'primitive' narrative forms: the progressive, the regressive and the stability narrative. In the progressive form the ending moves the situation forward, in the regressive form the situation has deteriorated and in the stability narrative nothing has really changed (Polkinghorne, 1988). These structures are consistent with what we consider to be different genres such as tragedy, comedy etc.

In addition to plot, Polkinhghorne argues explanation and communication as elements of a narrative. Within the logo-scientific mode of

31. The logico-scientific and narrative modes of knowing are presented in Chapter 2 Research Approach and methods.

knowing[31], an explanation is achieved by recognizing an event as an instance of a general law, or as belonging to a certain category. Within the narrative mode of knowing, an explanation consists in relating an event to a human project. It is contextually related and therefore different in form from formal science explanations. Thus, he argues, "narratives *exhibit* an explanation instead of demonstrating it." (Plokingorne, 1988, p. 21 italic in original). Narrative representation as means for communication refers to three different representations. Firstly, the actual lived and experienced narrative (for example going to the store), the representation of the experience to others through language, and the third kind involves the reception of the story. The interpretation and understanding of story being heard or read (Polkinghorne, 1988). From a design perspective this has been framed as humans live in story, explain through story, explore their worlds through story and finally design their worlds as stories (Krippendorff, 2006).

In conclusion, stories can be understood as lists, narratives or emplotted narratives through three different dimensions; chronicle, mimesis and emplotment. The differentiating dimension between a narrative and an emplotted narrative is the plot that serves as an organizing structure. The emplotment - how things are connected, the structure that makes sense of things – is central. This is because the plot shapes the actors, or characters, as the results of a series of actions (Czarniawska, 2009). Thus the act of emplotting or infusing a story with a plot, or changing the plot, can also be seen as a change of the meaning of the story.

Experience and meaning in narratives

There is as suggested above a strong argument that meaning is held, made and organized through narratives (Bruner, 1990; Eco, 1989).

> For stories have to do with how protagonists interpret things, what things mean to them. This is built into the circumstances of the story – that involves both a cultural convention and a deviation from it that is explicable in terms of an individual intentional state. (Bruner, 1990, p. 51)

Also (Dewey, 1938) discusses the transformation of experiences in terms of narrations and descriptions. Dewey describes a change as

characterized in terms of direction; *from* something *to* something, which closely relates to the definition of a minimal plot described above

In addition to connecting the construction of a plot above to the pragmatist idea of inquiry, the plot can also be seen as a form of aesthetic expression. The result of aesthetic expressions is not the direct delivery of an emotion "but a transformation of an experienced situation" (Hildebrand, 2008, p. 168).

In the idea that designers are interpreters of socio-technical and material contexts and practices, as suggested by for example Verganti (2008) and Kimbell (2012), then what is lacking in this proposition is that there is very little attention paid to the notion of experience. Experience and indeed the whole idea of (artistic) inquiry are central in both the understanding of how the designers pursue their work and what they interpret.

Sennett (2008) draws attention to the role of experience in skilled craft practice, and discusses the two folded meaning of experience in English as "an event that makes an emotional inner impress" and as "an event, action or relationship that turns one outward and requires skill rather than sensitivity" (Sennett, 2008, p. 288). Although pragmatist thought argues that these two meanings should not be separated, Sennett suggests that is mainly the latter that is of interest for craftsmanship. In discussions of design, often the emotional experience is brought forward as an aim for the design process, in concepts such as experience design and the experience economy. By bringing forward the experience as lived experience as important in skilled craft practice, Sennett brings attention to individual practice competence. He renounces the idea of innate talent and emphasizes the role of repetition and training for developing skilled practice.

If meaning is held in narratives and narratives capture complexities and relations as has been suggested above, then narratives definitely should be an interesting and relevant design material for service design. In the following section I will present how designers have worked with stories and narratives.

The use of stories in (service) design

This section discusses in more detail where and how stories are used within existing design practices and for what purposes. As so often is the

case within design research, the focus is on methods and tools. Recently the relevance of studying narratives in service design was pointed out Kankainen et al. (2012), explicitly highlighting the lack of research regarding the role of narratives in service design. Similarly Grimaldi, Fokkinga, and Ocnarescu (2013) highlight an increasing interest of narratives and stories in design. Below I shortly account for a few directions in design that treat how stories are used.

- Storytelling has been proposed as a tool for design, specifically service design, relating to its co-creative and processual character (Buskermolen & Terken, 2012; Kankainen et al., 2012; Steen, Manschot, & De Koning, 2011). Storytelling is also used in the so called experience economy concerning theme parks or restaurant and tourism to tell a specific coherent history (Mossberg, 2008; Mossberg & Nissen Johansen, 2006).
- Micro-narratives has been suggested to be used as exemplars in service design as means for quick and short prototyping Blomkvist and Holmlid (2009).
- Penin and Tonkinwise (2009) suggest using narratives as motivating and empathizing devices in service development and maintenance.
- Krippendorff (2006) sees narratives and metaphors as an important guide in the development of products. He proposes product design and communication as following a narrative pattern.
- Further, narratives of ideal futures are suggested means for proposing and communicating potential meanings (Krippendorff, 2006).
- Scenario based design is an approach developed within the tradition of Human Computer Interaction research (HCI) and the interaction design domain. Scenarios are used throughout the systems development process from requirement analyses, through the specific design, to documentation and training (Carroll, 1995, 2000).

Talk and dialogues in co-design

There are also descriptions of methods where the talk per se is in focus; one example is the so-called design dialogue (Brandt *et al*., 2008). Within the participatory tradition, one method is design games, based in theories of play where users and other stakeholders are engaged and encouraged to share their experiences as well as being part of co-constructing possible future solutions (Brandt, 2006; Brandt *et al*., 2008;

Habraken & Gross, 1987). These approaches discuss how design dialogues can be formatted (set up) and directed for being fruitful, and the role and responsibilities of designers in this work. Although the dialogue per se is brought forward, the relation of the interaction is in focus rather than the character of what is said[32] in collaborative and multidisciplinary design situations. Vaajakallio (2012) makes a distinction between dialogue as a means for direct user involvement and narrative as indirect user involvement. Where the narrative becomes the representative for the users perspective.

One example of how stories are used explicitly for design purposes in practice is The Experience Based Design Approach (EBD) as used by the UK National Health Service Institute for Innovation and Improvement (The NHSI). In this method stories are used for working with peoples' experiences and more specifically how to propose new potential solutions through design (see specifically chapter 6 in Bate & Robert, 2008). Bate and Robert pay specific attention to the narrative's potential of telling subjective stories of experience. Although not relating to the narrative mode of knowing, they position their work with stories as an opposing paradigm to the scientific logic so often dominating health care.

In addition Wright and McCarthy (2008) have discussed narratives and user experience within the tradition of HCI user experience and experience design[33]. By relating a pragmatist understanding of experience and narrative theory they suggest that narratives are a fruitful way for designers to achieve empathy as well as to interpret experience. Although stories are discussed and used for the purpose of understanding users in the design process, the use of a pronounced narrative perspective has been scarce in the broader design realm. As mentioned earlier, Krippendorff (2006) has related both the understanding of design and design as a process to narrative theory.

32. There are other studies, such as protocol studies and ethnomethodological based conversation analyses that looks in detail on utterances and interactions. (See e.g. Gero & Mc Neill, 1998; Stempfle & Badke-Schaub, 2002; Suwa & Tversky, 1997).

33. Experience design is yet another design discipline closely coupled to Interaction design and human-computer interaction and therefore not explicitly attended to in this thesis. Forlizzi positions for example both service design and experience design as sub disciplines to Interaction Design (Forlizzi, 2010).

Service design scholar and practitioner Shelley Evenson (2006) draws on narrative inquiry as an approach to inquire into meaning making and experience in design. She presents a method labeled Directed Storytelling, and argues that "narrative inquiry can be used to help designers understand beyond their own intuition and increase their potential to design resources for meaning-making that are useful, usable, and desirable." (Evenson, 2006, p. 232). The core of the process is to stage situations where users and other stakeholders can tell stories about their experiences. Individual sessions are proposed where one user/stakeholder tells their story, one person leads the inquiry and a third documents the session. These stories then are the material that the designers analyze through clustering into affinity diagrams, identifying tensions in and between the stories and developing themes of the matters that are at stake. The analysis then becomes the starting point for further conceptual development. Evenson stresses the role of the stories as carrying meaning about the informants' experiences and as pointers to the most significant ideas or themes central to an experience. In this particular study she does not account for how the concepts that came out of the directed storytelling process were re-presented, but focus on the ways the designers worked with them. The focus is rather on the materializing, than on the materialized.

Further, techniques based in narrative inquiry have recently attracted attention from researchers within service innovation. One example is The Event-Based Narrative Inquiry Technique (EBNIT) which combines narratives, critical events and metaphors to analyze service experiences (Helkkula & Holopainen, 2011; Helkkula & Pihlström, 2010). Helkkula and Pihlström (2010) argue similarly to Evenson (2006) and Wright and McCarthy (2008) for the narratives potential to include contexts and subjective experiences.

In several others areas such as healthcare, nursing and education *narrative inquiry* have been used for understanding the situations and perspectives of patients, students, and educators Clandinin (2007). Connelly and Clandinin write "In understanding ourselves and our students educationally, we need an understanding of people with a narrative of life experiences. *Life's narratives are the context for making meaning of school situations*. This narrative view of curriculum is echoed in the work of language researchers (Calkins, 1983) and general studies

of curriculum (B. Rosen, 1988; Lightfoot & Martin, 1988; Paley, 1979)." (1990, p. 3 my italics).

This method could relate to how the designers approach the wider scope of the service situation. In the studied workshop situation it could be reframed as – *Life's narratives are the context for making meaning of service situations*. Although the narratives that the designers produce do not aspire to cover the entire life of the farmers, they do expand the situation outside the direct scope of the service encounter to inquire into the larger context of the farmers' lives.

In a broader marketing perspective a recent study by Cayla and Arnould (2013) brings forward the benefit of using ethnographic stories for market learning. Drawing on Donald Polkinghorne and Jerome Bruner's thinking, the authors argue the relevance of using methods and tools that lie within the narrative mode of knowing[34] for a deeper and more nuance understanding of the market. The study draws on interviews and participant observations from diverse actors in a broad field of innovation and development projects and companies[35]. The authors argue the relevance for using ethnographic stories for understanding the complexities of contexts. "Specifically, ethnographic stories is about ordering reality and constructing meaning." (Cayla & Arnould, 2013, p. 11).
The authors suggest that the ethnographic stories operate between the world of the firms and the world of the consumers as boundary objects, helping to bridge the distance between these different spheres.

What I find interesting is that Cayla and Arnould also bring forward ethnographic research as 'storytelling craft' in the sense that the authors draw attention to the work that is done *with* the collected material in order to construct an ethnographic story to present for the company. They note that this demands skill and understanding of what makes a good plot bringing together various types of data and insights. Actually acknowledging the role of an interpreter in between the sphere of the customers and firms, what I previously argued was lacking in the customer integration literature.

34. The narrative mode of knowing as opposed to the logic scientific mode of knowing is discussed in the Research Approach and Methods Chapter.

35. Although the authors do not explicitly mention design/design practice as a specific competence the examples they mention are well known design projects from e.g., IDEO.

Summary of theoretical perspectives and hypotheses

In this section I conceptually dealt with questions raised through the first analysis of the case: If stories can be seen as design material, and if narrative theory might be productive in understanding what this means.

Through this conceptual inquiry I conclude that it is not only possible but also highly relevant to see the stories used by the designers throughout the process as design material. The designers noting down the accounts from the farmers can be understood as materialization, and the instantiations that were taken 'home' from the workshop as materialized stories. Further, the designers interpretation meetings, among themselves and together with the company representative can be seen as rematerializations. More importantly, the scenarios can be understood as rematerializations. Thus my inquiry becomes to shed further light on the difference between the materialized and the rematerialized outcomes of service designers' practice. Although iterations of materializing and rematerializing practices occurs throughout the project, this is not the focus of my study, since I have made the decision to look at the outcomes of these design practices rather than the design practice and process per se.

Further, narratives are means to organize, interpret and communicate experiences: this is commonplace. Exactly this is why narratives are more relevant in this design situation than the expected mappings. Then again, narrative analysis exploring the plots and contents might be useful for understanding what design practice achieves when using stories as design material. In relation to narratives as interpreters of meaning, the question then is if, and if so, how the designers change the narratives in regards to meaning through rematerialization.

Following this line of inquiry, I conceptualize the design process and practice as a narrative inquiry embedded in narrative mode of knowing and pragmatist inquiry. As the next move in this inquiry, the experimentation, I return to the field material and more specifically analyze the stories and what the designers did with them, and what they achieved through this work.

6

Returning to the field: exploring narrative dimensions and materialization

In this chapter I present an introduction to the analyses conducted as an exploration of the relation between facts and meaning, or how the conceptual ideas developed in the previous chapters actually relate to the field. I do so by reentering the field material first with a framework based in narrative theory in Chapter 7, and second with the concept of materialization in Chapter 8. This chapter presents the vocabulary used, a short background description and present the construction of the units of analysis.

The following chapters move from the larger scope of the field study to zooming in with a micro perspective on the outcomes from a set of activities that the designers performed in their role as intermediaries in the studied case. Chapter 7 focuses on the scenarios presented to The Company and how they related to what the farmers told in the workshop, below right in fig. 6-1. Chapter 8 focuses on the material that was constructed in the workshop by the designers, the instantiations, above left in the illustration. What happened in between is described in the .

A small glossary

In the following sections I make use of concepts from narrative theory for understanding and interpreting what happened in the field, see Table 5.

The vocabulary easily becomes confusing concepts are also frequently used in everyday language. Here I put on an analytical costume with the purpose of facilitating the reading, and provide a glossary explaining the respective concepts and describing how I used them as either representing an analytical concept or the analyzed field material.

Analytical concepts:	Account:	Anything said or written; a list, a proposition, a description etc., without any particular structure.
	Narrative	An account that includes temporal and intentional dimensions
	Plot	A move from a balanced state, through a changing event, to a new balanced state
	Mimesis	The description the scene; how it looks, where the event takes place
	Chronicle	What actually happens in the description
	Emplotted narrative	A narrative + plot
	Emplotment	The act of introducing a plot as a structure in a narrative
Field material	Story	An oral retelling of an experience in the workshop or in the presentation meeting
	Scenario	A combination of several scenes into a coherent story.
	Scene	Description of a specific situation constructing a part of the scenario, in this case represented by a slide in the presentation
	Situation	The description the designers had prepared and read aloud as an introduction to the parallel sessions in the workshop
	Instantiation:	The physical representation of the stories about experiences told by the farmers at the workshop
	Sticky note:	Additional notes taken by the designers at the workshop, attached to an instantiation or on separate sheet of paper labeled with the Situation.

Table 5 Glossary

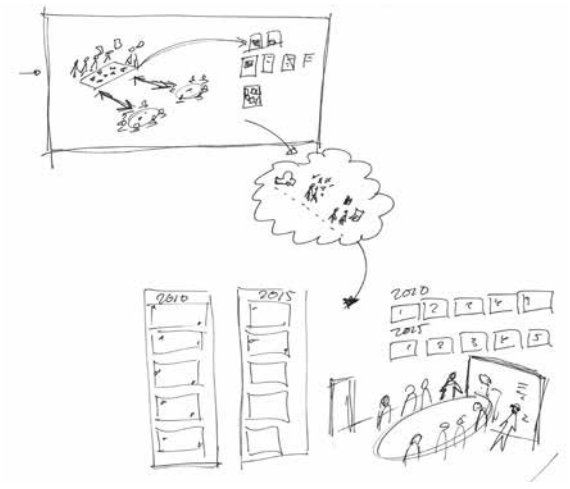


Figure 6-1 The production of the instantiations and the presentation meeting

The project presentation meeting and the scenarios

As presented in the case description in Chapter 4, the meeting for presenting the results of the service design pilot was held at the industrial company's premises, with invited guests from Regional and Local service organizations. The meeting was hosted by the service division manager, Christopher and started with a round table presentation. This was followed by an introduction of the background of the pilot project, presented by Walter business developer and the internal person responsible for the service design pilot at The Company. Then Anna and Victor from AllDesign presented the design agency and proceeded to the outcomes from the workshop. The results from the pilot study were presented in three different sections of the slide presentation: 1) as an introduction to the scenarios, summarizing the results and presenting four themes [two slides], 2) through the two scenarios [ten slides] and 3) presenting opportunities and potential projects [three slides]. See Figure 6-2 for an overview of how the slide presentation was structured.

Extensive references to the farmers' accounts were made in the introduction and in the scenarios so my analysis therefore focused on these three parts of the presentation. In addition to the slides, I used audio recordings and transcriptions from the meeting.

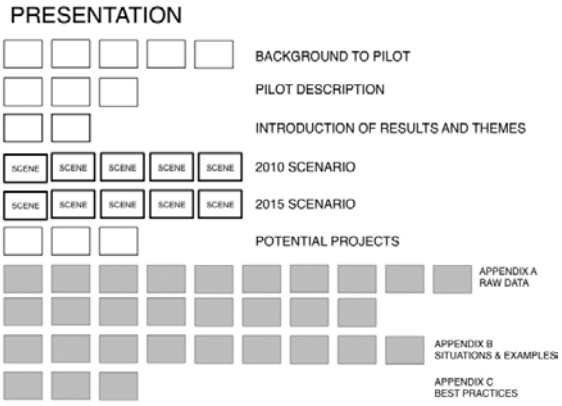


Figure 6-2 Layout of the slide presentation

Definition and construction of units of analysis

The physical output from the workshop and what was rematerialized to the organization was defined as the unit of analysis for the inquiry into what the designers achieve through the use of stories as design material. It should be possible to distinguish the designers' contribution and what is changed by means of comparing and analyzing these two entities, as shown in Figure 6-3. In order to make the instantiations and scenes accessible for analysis, support was needed in the recorded material. How this was done is described below.[36]

In this study I decided to analyze 1) the final Scenarios presented to The Company in the final presentation meeting and 2) the Instantiations from the workshop. Both these materializations are complemented by transcriptions from the respective meetings. Thus the units of analysis are constructed from both the material produced by the designers, their

36. Alvesson and Sköldberg brought attention to the importance of acknowledging that the data is constructed (2008). Along the same line narrative scholar Riessman argues, "transcriptions are by definition incomplete, partial and selective – constructed by an investigator." (Riessman, 2008.)

interpretation and transcriptions I made from the respective recordings. These units of analysis have been analyzed using a different of methods since the questions raised required different tools for inquiry.

In the case of the *scenarios* I have used the slides, and the transcriptions of the descriptions the designers made in the meeting. In addition interruptions or discussions by other meeting participants that seemed related have been included. Thus the units of analysis are both the slides and the related transcriptions.

In the case of the *physical instantiations* from the workshop the construction is somewhat different. The instantiations and the sticky notes were first analyzed in isolation. Then they were coupled with the transcription of video recordings of the workshop when the respective instantiation was presented to the entire group, and any additional comments or questions have been added. As described in the case description, the workshop consisted of parallel sessions where the specific subjects and situations where introduced and discussed and the instantiations constructed. In addition, there were joint sessions where

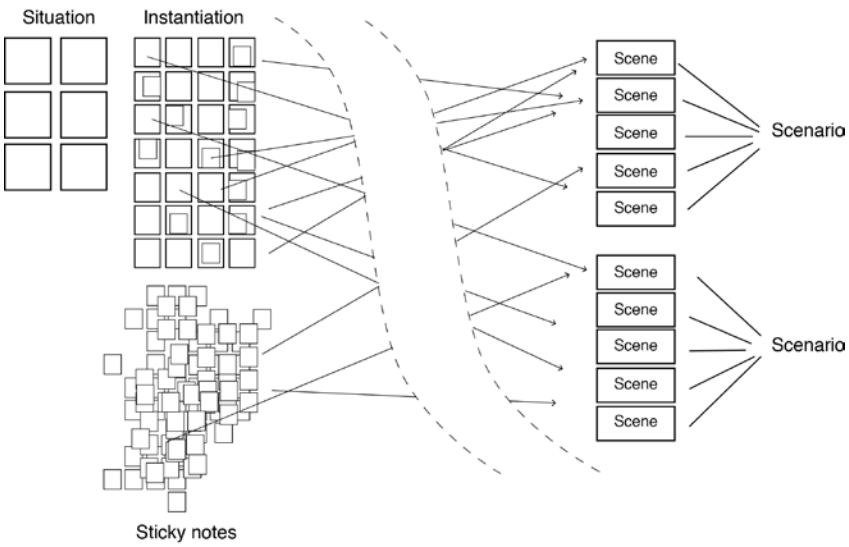


Figure 6-3 Conceptual relation of the produced material from workshop and presentation

the farmers described the situation at hand in their own words with support of the instantiations. Since the parallel groups discussed different situations this was an opportunity for the other group to comment, complement or just agree in the description. To find a point in the data material where a description of the instantiations was given by the farmers I choose to go back to the video-material and transcribe verbatim the specific situation where the instantiation was presented to the group. Sometimes the farmers presented the instantiations but almost as often the designer presented it or at least filled in details. Often the presentation was complemented by a question from the Facilitator asking if the others had complementary experiences or if they agreed. When there were several farmers' voices involved in the retelling this was marked in the transcription. These were accounts that came from the farmers although processed together with the designers and the two company representatives. I transcribed the accounts, only sparingly the actions. I found some accounts that lacked instantiations and others where I lacked an instantiation in the copied material. In both cases this reconstruction was done through coupling the instantiation/scene with the transcription in a spreadsheet, with an example from the analysis provided in Figure 6-4.

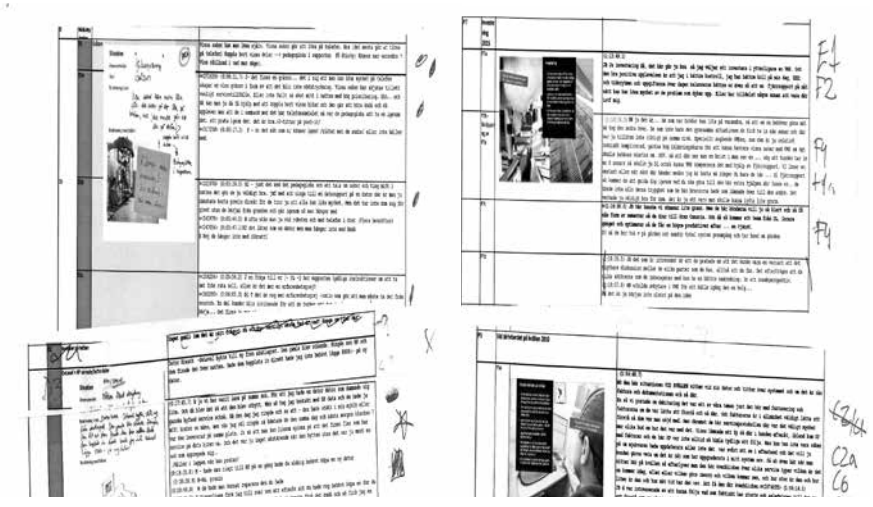


Figure 6-4 Example of coupling of instantiation and transcription

7

Exploring and analyzing stories as design material

The use of accounts, dialogue and stories can be analyzed in various ways. I have chosen to use an analytical approach inspired by narrative research and narrative analysis. I make a first reading of the narrative character of the instantiations and the scenarios to determine if a narrative perspective on this material is appropriate. The studies that follow explore: first, the narrative dimensions of chronicle, mimesis and plot, second, the re-presentation of the users' stories in the final scenario, and third, how the users stories are retold to the client company through emplotment.

Narrative analysis

Approaches to analyzing narratives depend on the aim and underlying assumptions. Polkinghorne (1995) argues for two different approaches to analyze narratives drawing on Bruner's distinction of paradigmatic and narrative knowledge. The two approaches are 1) analysis *of* narratives resting on a paradigmatic understanding, and 2) narrative analysis drawing on a narrative mode of knowing. Polkinghorne argues that the first, analysis of narratives, implies that the narratives are collected and analyzed using paradigmatic methods, such as finding themes, or conceptual manifestation through grounded theory, for example. In such cases narrative analysis is a synthesizing of data, a reconstruction where

events and actions are configured as the advancement of a plot. In other words, the narrative is the outcome of the research process. Where Polkinghorne sees these two modes as distinct and fruitful, each one on its own premises, Bleakley (2005) suggests interplay between these two modes: stories as data and data as stories. Further, Clandinin and Rosiek (2007) in a pragmatist tradition discuss the fruitfulness of being open to multiplicity and suggest seeing narrative inquiry differently as a landscape with borderlands to both paradigmatic and more outspoken constructivist approaches. For my purposes I will follow a pragmatist pattern of inquiry and use the methods described below for exploring the field material anew. I expect to be able to shed light on how the designers have used the stories in their intermediary role and what they have materialized in so doing.

I will draw on methods for analyzing narratives in the borderlands of narrative inquiry. I use methods both in more narrative mode doing a structural analysis for inquiring into how the stories are told and retold, and paradigmatic mode through thematic analysis with the purpose of understanding what is paid attention to. In addition I have mapped the relationship between the accounts in the instantiations and what was represented in the scenarios.

Analysis of narrative dimensions

In the first reading of combined visual and textual excerpts of the instantiations and scenes, my aim was to explore their narrative characteristics: if they could be seen analytically as accounts, narratives or emplotted narratives. Czarniawska (2009) argues that a narrative has three dimension, 1) the plot, 2) the chronicle– what is happening in the account, and 3) the mimesis – how it looks. Through the analysis I describe the extent to which the designers used visual or textual means for communicating these different dimensions. These dimensions, together with emplotment, are considered by Czarniawska to be part of a narrative analysis and as important facets to be aware of when doing narrative analysis and writing up the narrative of the study. In this analysis I use these concepts for understanding how the designers have 'written up' their research.

The analysis depended upon both the physical representations and transcriptions from the workshop as described above. A template for the analysis was developed as shown in the example of an interpretation in Table 6, an example of an physical instantiation is presented in fig. 7-1 .

Situation: **Before Service**	**Title: Flexibility**	Evaluation: **Good**
Description in text on instantiations (B2):	The service technician adapt to the situation at the farm (within a time span of ex 2 weeks) (can be "too flexible") – may sometimes give an impression of being strained	
Transcription:	(0:04:08.1) Farmer 1: The service technician adapts his schedule, so he is flexible in regards to the one that runs the farm if it is harvest etc. (0:04:38.7) This can also be a negative thing, this, because sometimes the service technician can be too flexible, I think at least. It can be to long intervals [between service]. (0:04:47.9) Facilitator Richard: you feel that… (0:04:50.2) [Designer1, Victor writes something on sticky note] Farmer 1: I feel that the problems increase if it takes longer Facilitator Richard: Hmm... So the problems increase… Farmer 1: it may yes… function less well right before service. They seem at times very strained, the service technicians it is easy to push the service forward, they have a lot of extra [work], and this is not so good. … But that he reschedules it when I want it that is another thing. [Laughter]	
Chronicle:	Sometimes the farmer needs to reschedule the service, the service technician is flexible and adapt – this is good. But sometimes the periods between the services becomes too long and then my equipment decreases in efficiency. This is bad. But it is still good that he adapts according to my needs.	
Mimesisis:	- [An image of a service technician working with an AMM is attached] See below	
Emplotment:	There is a need of flexibility. But is it the farmers' needs, the demand from the equipment or the service technicians booking schedule that directs the service interval?	

Table 6 Analysis of instantiation B2

Figure 7-1 Instantiation B2 'Flexibility'

A first narrative reading

In the first reading of combined visual and textual excerpts, the instantiations and the scenarios were paired with transcriptions from the workshop and presentations as described above. This was done through inquiring into the narrative dimensions of the instantiations and the scenarios by moving in parallel between them and the questions below to determine if they could be seen analytically as accounts, narratives or emplotted narratives. I read and looked through the material with the following questions in mind:

> *To what extent do they [the instantiations and scenes] attend to the three dimensions of a narrative: chronicle, mimesis and emplotment? If there is a plot, how can this plot be understood?*

Analysis showed that most of the instantiations represented a narrative and most often also contained a plot. Thus the experiences described by the farmers were organized around intentionality and temporality. There was a distinct difference between the scenes in the 2010 and the 2015 scenarios. The scenes in the 2010 scenario lacked a clear

emplotment, instead they tended to communicate multiple intentions and end without a new equilibrium being reached. In contrast the scenes in the 2015 scenario were emplotted in a way that ended in a new equilibrium that was favorable from the farmer's perspective. The narrative dimension of mimesis was dealt with in various ways.

The absence of mimesis in text and accounts

Mimesis refers to the description of the 'scene' or the environment where the story takes place, and both instantiations and scenarios tended to lack the mimesis in the written texts and oral accounts.

The stories told in the workshop rarely included any mimesis: supposedly the frame was set by the group of farmers and the setting was the meeting room in a barn. Occasionally clarifications were made for the designers in a separate conversation, but these were not captured on the instantiations, and were left in the discussions. The image added at the instantiation most often gave little direction for capturing the scene; rather, from my perspective it had an unclear function. The farmers were among peers in the workshop, others who knew what their lives were like, and also even knew what their individual farms looked like. However, sometimes, for instance in a discussion about where the service protocol was placed, or where the person was placed when making an emergency call, there were clarifications about the space and places and how to move in between them. Thus mimesis seemed to be implied in the situation per se but was not explicitly expressed in the instantiations.

In the scenes, however, mimesis was present, but not through the oral and textual narrative. Instead an indication of the environment where the situation took place was expressed through the background images on the slide, and to some extent was supported by the tag line on the slide. For example, the combination of a man in bed holding his cell phone and the tag line, "What is it now…?" said something about the scene, the situation from the farmer's perspective (see Figure 7-2). Thus the visuals were trusted for communicating aspects of the narratives that then did not need to be mentioned in text or talk. Instead the image and text were seen as one entity for communicating the mimesis of the narrative.

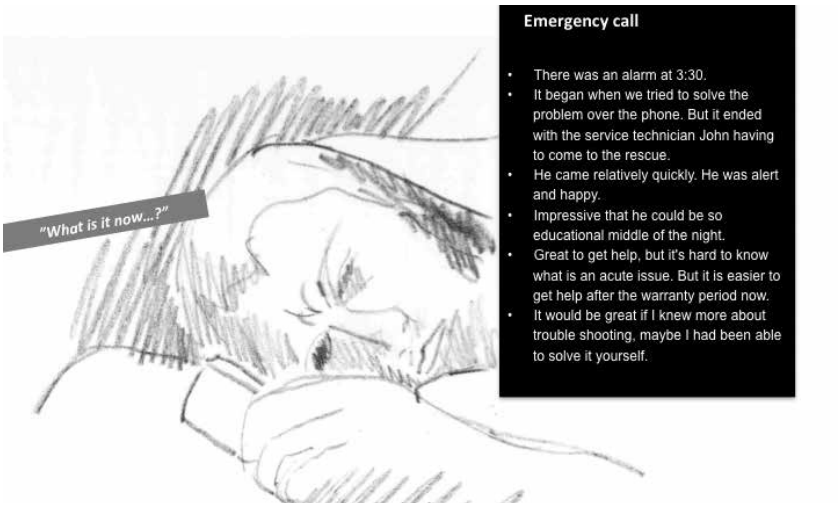


Figure 7-2 A scene in the slide presentation, illustration by author

The re-presentation of the instantiations in the scenarios

As mentioned, during the two introduction slides, the designers frequently referred to stories and accounts told by the farmers in the workshop. This could be seen as the designers setting the stage for the two scenarios that followed and building legitimacy by drawing extensively on stories told by the farmers.

In both scenarios and the introduction there were indirect references and direct quotes from the instantiations. In this first reading it appeared that there was actually very little information that did not come from the interactions with the farmers, so the actual content in the instantiations and the scenarios seemed to be the same but the framing was somewhat different. What the designers contributed could then be questioned. This will be discussed further in the next section treating how the information from the users was retold.

Seemingly the content was the same, but did the scenarios draw on specific stories of experience or on all experiences? Furthermore did the same stories form the inspiration for both scenarios or did the scenarios re-present different stories, different experiences?

Mapping the relations between instantiations and scenes

In order to understand the extent of the farmers' accounts of experiences actually rematerialized in the final scenarios, I conducted a relational mapping of the instantiations and the scenes in the scenarios. This process also showed if there were any user stories that were more central than others.

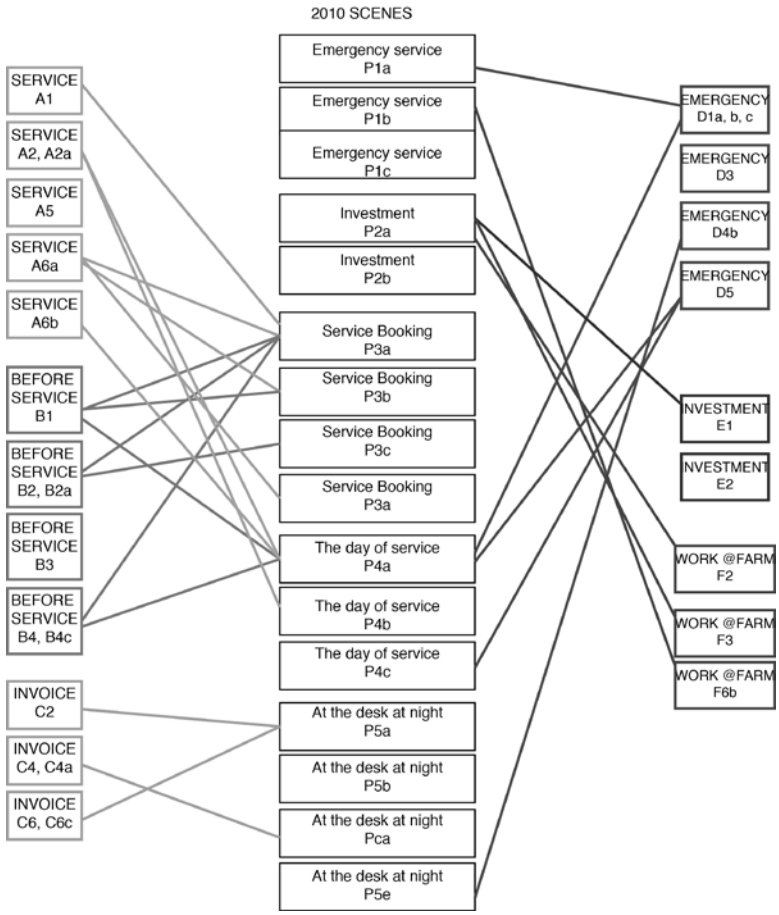


Figure 7-3 Mapping of relation instantiations in column left & right, and scenes in center.

Each instantiation and scene was given an ID. The instantiation ID referred to the specific situational theme documented; if the transcriptions contained multiple accounts of experiences they were then given a sub-id. A similar subdivision was made if needed for the scenes referring to their respective scenario. Then I made a close reading of the instantiations/transcriptions and scenes/transcriptions. An example of the mapping of the instantiations can be seen in fig. 7-3.

The respective units of analysis were the scenes and their respective transcriptions from the Introduction, 2010, and 2015 scenarios with the ID's of the different instantiations with connecting transcriptions. I then made a reverse marking to see if there were any specific central instantiations that appeared throughout. I marked those appearing in the Introduction with a square, those in 2010 with a circle, and those in 2015 with a star. I then plotted these relations in the spreadsheet.

Same but different

In both the scenarios there were indirect references and direct quotes from the instantiations; there was actually very little information that did not come from the interaction with the farmers, so the content was the same but the framing was somewhat different. The scenarios drew their content from stories related to all six situations, and during the introduction the designers re-told excerpts and experiences from three of these situations: Work at the farm, Before service, and Emergency service.

All-in-all 28 instantiations were made and placed on the table in the landscaping exercise. In the further analysis I identified two distinct stories that were not captured on paper but that reappeared in the scenarios. However, the stories must have been strong enough for the designers to remember since they also reoccurred in the final presentation. Also, one of the company representatives made reference to one of these stories not captured on paper. This highlighted the importance of actually being in the situation with the farmers in contrast to using previously processed information, as in reports or specific outcomes from workshop activities.

When presenting the respective scene in the scenario, the presentation could be said to consist of a main story, the one captured in and

between the bullet points on the presentation slide. This main story was often supported by one or several side stories, such as a reference to something that a farmer said in the workshop, that had not been captured in the formal material (the instantiations), but was discussed in the individual sessions. The stories told during the presentation in the respective scene drew on accounts from various sessions in the workshop. For example, the scene 'The day of service' included stories captured on instantiations from the Situations Before service, Service, Invoicing, and Emergency service. The designers thus treated the material not as separate accounts but as stories of *connected experiences* that related to what the farmer found important.

Only one scene did not re-capture or relate to any account from the workshop and this was the first slide in the 2015 scenario, which I will treat more in detail below. The 2010 scenario included references to 21 out of the 28 instantiations while the 2015 scenario drew on 16. This indicated a higher complexity in the 2010 scenario and also that the designers to a larger extent employed the user stories for representing the present situation.

Additionally, some of the instantiations seemed to have influenced the entire scenario more than the others. In the 2010 scenario four instantiations related to the situations Before Service and Emergency: one was framed as good and the other three as ambiguous. In the 2015 scenario, four instantiations were related to Service, Invoice and Emergency situations: one was evaluated as good and the other three as poor experiences. However, the instantiations from which the 2015 scenario drew inspiration also contained an early idea of possible solutions.

There were also five instantiations that appeared in all three rematerializations where references were made to the farmers' accounts: the introduction, the 2010 scenario, and the 2015 scenario. These sets of instantiations were central to the stories the designers told to the organization and were all emplotted narratives from the beginning.

In the comparison of transcriptions from the different instances in the data material there were direct citations or quotes from what the farmers said in the workshop in the 2010 scenario, whereas the future 2015 scenario *addressed* issues that were brought up in the previous scenario. Although direct quotes were used, they were represented, rematerialized in a way that was different. What was this difference about?

Where were the plots then?

In the above analysis attention was paid to the different narrative dimensions, and the lack of representation of mimesis in the textual and oral narratives was discussed. Further, I discussed the rematerialization of the farmers' experiences as accounted for in the workshop in the scenarios. This third analysis explores how the designers re-organized the stories told in the workshop and materialized as instantiations, and if, to what extent they became emplotted narratives in their rematerialization.

Structural analysis of narratives

Among other things, structural narrative analysis considers questions such as: "How are narratives organized or put together to achieve a narrator's strategic aims? How does a speaker attempt to persuade a listener that a sequence of events "really" happened" with significant effects on the narrator?" (Riessman, 2008, p. 77). For understanding more about how the designers re-told the farmers experiences in the scenarios this is an appropriate method.

The analysis concerns understanding the type of plot the designers have constructed in the remaking of the users' accounts into scenarios. As mentioned in the theoretical section on narratives in Chapter 5, plot can be seen as the organizing principle of intentions, temporality and meaning in a narrative.

The units of analysis for the structural analysis are scenes constructing the scenarios, and then the two scenarios in the slide presentation and transcriptions from the meeting. The same template as in the first reading of narrative dimensions was used, this time focusing only on the scenes. The reading explicitly focused on the characters and the emplotment of the scenarios as two narratives. Through this reading, I made a tentative reconstruction of the scenarios according to the emplotments in the scenarios

The stories told in the workshop were short stories, focusing on one specific memory, event, or experience. However, several of the stories contained the parts and dimension that made them into a narrative. The basic understanding of a plot is a situation with a certain balance,

equilibrium, something happens that distorts that balance, some action is taken as a counterforce, and some kind of balance is restored – however not identical to the situation before these different happenings. Now I look closer at the scenarios as narrative entities. I will first present and discuss the scenes independently and then the respective scenario as an emplotted narrative.

The setting of the scene

In the introduction the designers first summarized who they understood the farmer to be. They concluded that the main perception amongst the farmers was that they were quite satisfied as customers. In so doing they referred frequently to stories told during the workshop.

The chronicle of the stories told in the introduction summary was something like this:

> It is a social and relational situation to be a farmer; it is a 24/7 engagement. It is not an employment or work, it is a lifestyle - a choice of life. When the farmer invested in the AMM it changed his way of being a farmer and thus also his life. They didn't get more free time after the AMM but a different life with other responsibilities. The farmers all agree that there are consequences if you don't follow the service protocol, but it still happens and they need and want support in this. They are very satisfied with the service technicians, their behavior and as persons and they develop personal relations with them.

The plot could be interpreted as follows:

As farmer you do not really have any free time, you never had. The investment in the automatic milking system changed the farmers' life situation. He needed more support to get this to work and to feel he can use his own resources. This was taken care of through a close relation with the service technician.

In the second slide the designers summarized their findings in four themes: time, knowledge, communication and roles. They referred in broader terms to what was said, and also to specific examples such as the situation when a farmer had to replace a computer and later could have it repaired by the computer supplier instead. The first summary could

be seen as setting the stage for the scenarios to come. The roles were somewhat assigned.

The first scenario: A day in the dairy farmers life 2010

Below I give a short description of the Scenarios by retelling the chronicle, the actual events presented in the respective scenes, followed by presenting my reading in relation to the plot. The first scenario was presented through five slides each presenting a scene: 1) Emergency call, 2) Investment, 3) Service booking, 4) The day of a maintenance service, and 5) At the desk at night.

<u>Scene 1 – Emergency call 2010</u>

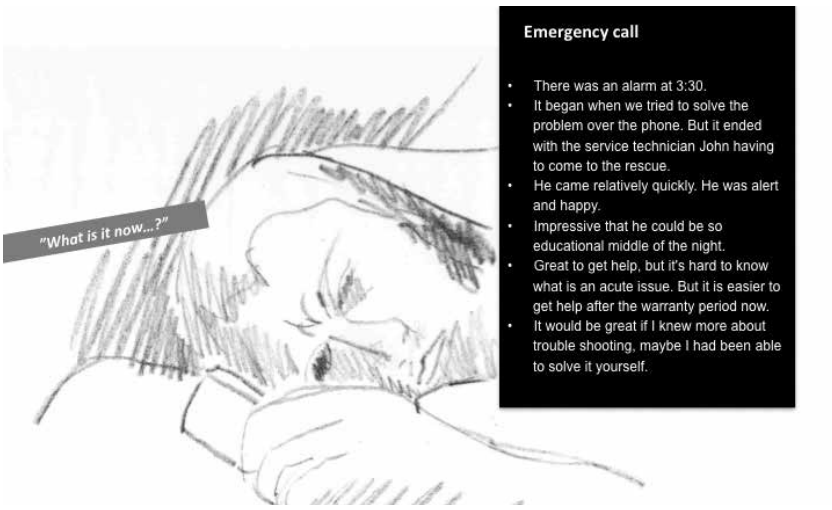


Figure 7-4 Scene 1 in the 2010 Scenario

The scene was set through the background image and a bullet point stating "An alarm went off at 3.30" (see fig. 7-4). The activities described in the first scene treating emergency service were as follows:

> There is an alarm; the farmer tries to solve it himself with phone support, no success. The service technician has to make an emergency visit. The farmer is impressed with the service technicians' good mood in the middle of the night. And their pedagogic skills and the way they continued with the trouble shooting process.

We assume that the problem was solved. The story continued by infusing more of the farmer's wishes and experiences, for example, that he wished to be able to do more of the trouble-shooting himself.

Designer 1- (0:34:46.5) and then I'd [as the voice of the farmer] appreciate if I could do more of the troubleshooting myself, then I could maybe solve more problems without this emergency call. And maybe with telephone support be able to solve certain problems without having the service technician make a call.

This changed the story from a narrative of a successful emergency service to include another plot, a plot where the farmer wished for more control and independence. Although farmers were very happy with the service technicians, they would rather troubleshoot without the extra hassle and especially costs.

Scene 2 – Investment 2010

In the second scene, the Investment, the narrative mainly echoed what was said in the introduction. A happy young couple was standing in front of an AMM in the background (see fig. 7-5). The tag line was "A fresh start in our lives" and the chronicle said:

> The farmer invested in the AMM and got a better and quite different life. He gets more done and a better work environment.

The plot was: I had to make a decision of change – this was the decision I made and I do not regret it. In short, a story of success!

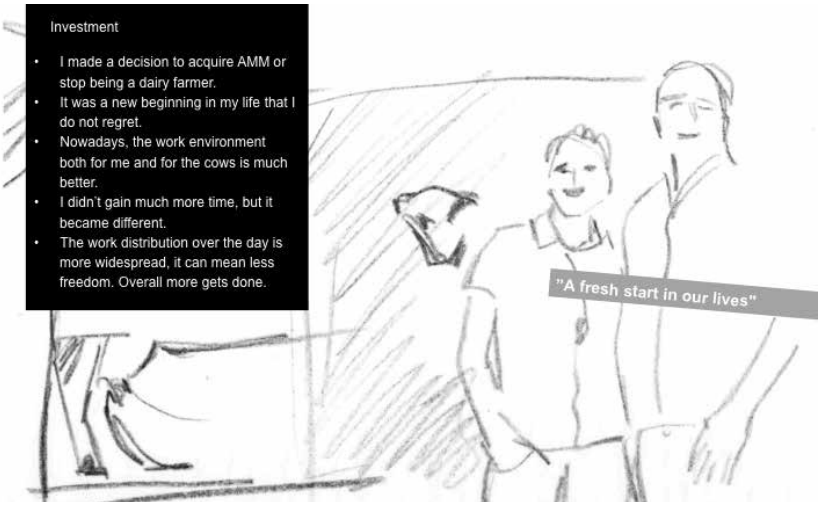


Figure 7-5 Scene 2 in the 2010 Scenario

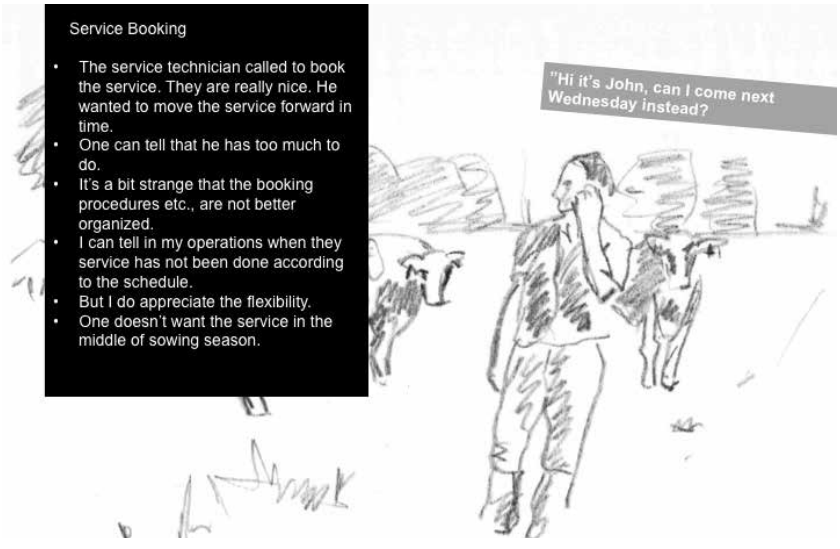


Figure 7- 6 Scene 3 in the 2010 Scenario

Scene 3 – Service booking 2010

The focus moved to Service booking in the third scene (fig 7-6). The tone changed in this scene. The image showed a farmer in a field, answering the phone and the tag line said: "Hi, it's John, can I come next Wednesday instead?" The chronicle read as follows:

> The service technician called and booked a service. They are generally nice and friendly. He wanted to push the service forward. One can tell that they [Service technician] have too much to do. It's a bit strange that the booking procedures etc. are not better organized. In the farmer's operations it appears that the service has not been done according to schedule. But it's good that service technicians are flexible. The farmer doesn't want to have a service when in the middle of the sowing season.

The chronicle here was that the service technician called to move a planned service. If he did that ahead of time it was not an issue. However, often this was apparently not the case, and this has affected the work situation of the farmer. Here one of the persons from The Company taking part in the workshop stepped in and elaborated on the situation.

The story did not reach a new satisfactory equilibrium in the form it was told by the designers. Instead the plot in this scene could be seen as the farmer being left in the hands of the service technician, lacking control over the events that affected his farm and production. In connection with this situation an extended discussion developed about how to deal with issues concerning both booking and the case when service technicians have been on a night call. This was the scene where the most extensive discussion took place, involving potential solutions and ideas.

Scene 4 – The day of service 2010

The scenario then moved to Service Day (fig. 7-7). The background image showed a happy service technician in his service car, the tag line said, "Hi John, is it a big or small service today? I need to go at 5." The chronicle:

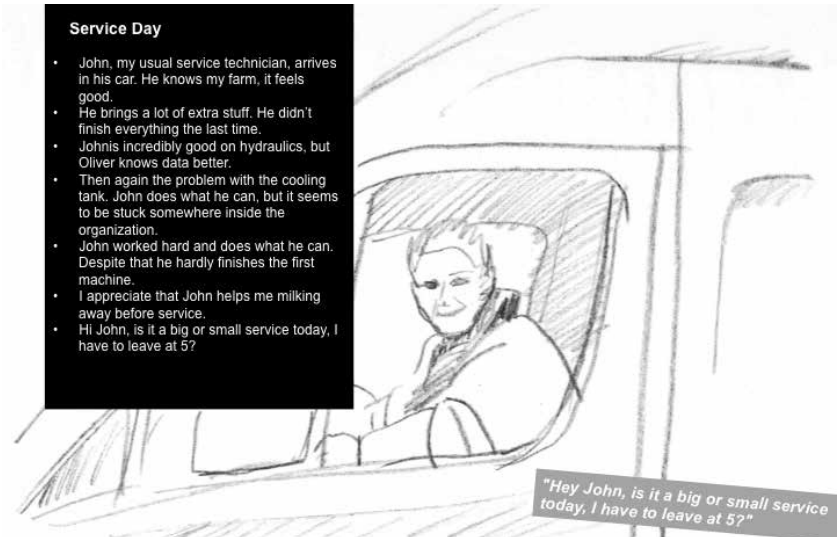


Figure 7- 7 Scene 4 in the 2010 Scenario

> The service technician works hard, he had some stuff that was left since last time. There is an ongoing discussion of a case regarding a tank that was a faulty delivery, but it never gets fixed, it is stuck in the organization somewhere else. John [Service technician] works really hard but when the farmer needs to go at 5 he is not done. The service technician helped out with the preparatory milking that took time but they tried to do their best.

Thus the service technician came to conduct a service that was not completed last service visit and was not fully finished this time either. There were other unresolved issues: the narrative also included side stories such as John's competence in hydraulics but not in software. In addition it was mentioned that the machinery worked fairly well since the last unfinished service although not top-notch.

The plot was organized around both the idea of the hardworking service technician, and the lack of control for both the farmer and the service technician. This story did not end in a new equilibrium but instead showed imbalances.

Scene 5 – At the desk in the evening 2010

The final scene in the 2010 scenario was At the Desk in the evening (fig 7-8). The background image showed a man and a computer with the tag line:

> Hi, it's Steve, there is something wrong with the software. Can you help me? The farmer is at the farm office at night to go through invoices and protocols etc. The handling of the service protocols is incoherent and somewhat confusing for the farmers. The farmers lack overview of services that have been done and to come. The farmer is interested in knowing what has been done to his equipment.
> By the evening the farmer has time to sit down by the computer and wants to call computer support. And do so although the support desk really is there only for emergency calls. Despite this, the farmers have figured out that they know the software stuff better than their ordinary Service Technicians.

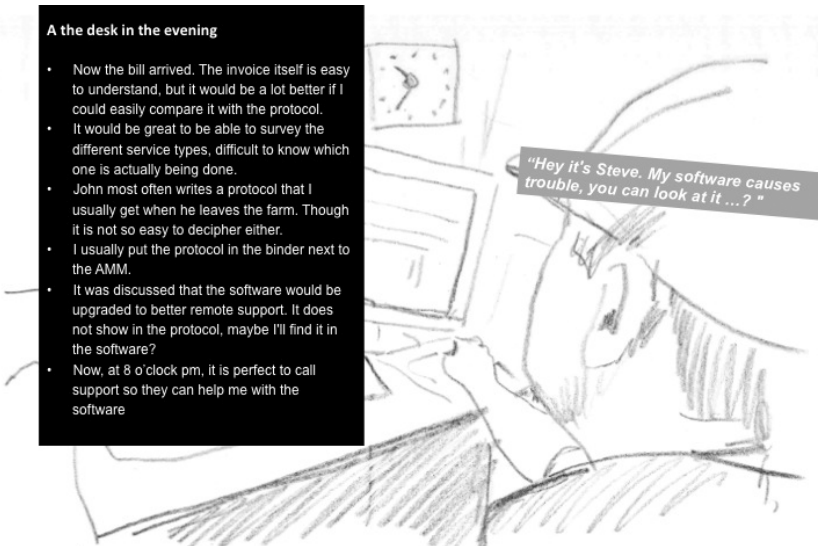


Figure 7- 8 Scene 5 in the 2010 Scenario

This was a rather complex scene and also the second to caused extensive discussions and interruptions. The designers engaged in the discussion as well as several of the meeting participants, drawing on their own experiences in both private and professional roles.

The rather long excerpt embraced many issues of quite specific character: how the protocols were delivered, what information they contained, and also told about how the farmers organized his life when he preferred to do a certain type of work.

This story was organized around two plots: 1) The wish for control, accessibility and clarity in the relation to the delivered service and documentation, 2) The need for non-emergency support during the night, that is, a plot that asked for understanding of the farmer's life situation and adapting accordingly.

The ending of this scene was a partly a good one for the farmer who received the support he needed and wanted in regards to the telephone support. However, from a corporate perspective this was not the case. In this case the company's resources were misused.

The second scenario: A day in the dairy farmer's life 2015

As in the previous scenario, the presentation was divided in five slides each representing a scene, the titles being: 1) Emergency call, 2) Investment, 3) Service Booking, 4) The day of service, and 5) Outside the barn. This scenario took less time to present, the designers were less interrupted and the discussions thus fewer. As in the presentation of the previous scenarios I present the scenes through the chronicle and my analysis of the plot.

Scene 1 - Emergency call 2015

In the first scene the service vehicle was arriving in early morning light, in a very heroic way (fig. 7-9). In this case I present the full transcription of the scene since it was very short. The tag line was "Wow, this was long ago". The very short description that went with this slide was one bullet point:

Figure 7- 9 Scene 1 in the 2015 scenario

It is 1.5 years since the last emergency call.

The oral description that accompanied the slide:

(1:12:32.6) EMERGENCY CALL ...

Anna: the first is easy, right. This should never happen. The aim is really that this never should happen. Or at least at a frequency that you barely remember.

But the response from the participants in the room was not a coherent acceptance but:

(1:12:36.8) NN - well, that is when we really have the opportunity to deliver, Christopher, the service division manager - we are good at communicating, a cow that is unmanageable, a bolt of lightning, the customer value is extremely high… the knowledge that it works…

This was the only slide where the designers did not draw directly on information from the farmers. I read this as a misinterpretation by the designers regarding the meaning of an emergency call for the farmers and The Company. The service organization apparently held very strongly to

the idea of emergency service as a special case where they could deliver knowledge and competence, in a situation where the customer really needed the help – thus very high customer value. They could deliver all this and they knew it. An emergency meant that a cow might be trapped, or a cow had kicked a sensor or the vital camera that detects the teats and udders and thus impaired the entire system. These things could not be avoided through maintenance services and needed a service technician to make the exchange of parts. The story was short and did not contain a distinct plot, but the comments that followed revealed the different perspectives that were put in play.

Scene 2 – Investment 2015

Figure 7- 10 Scene 2 in the 2015 Scenario

Scene two was similar to the 2010 scenario, the Investment (fig 7-10). The background image was a shiny barn with a close-up of a cow, with the tag line: "I have better control over my day and production".The chronicle:

The farmer has made additional investments, his day has now a good flow and he receives help and support when needed.
In the case of having two owners the farmers have a natural replacement and also reassurance, which is lacking when being a sole owner. A remote support service solves a lot of problems when the farmer is not on the site.
The farmer will go on vacation for two weeks, and meanwhile a support team will take care of the farm for service and optimization.

This narrative progressed through several moves:

First move: this system was so good I bought another one. I felt more supported and independent than I did some years ago, before the latest development of the system and support. The designer presenting the scenario described future features and how they could be handled. This implied that there had been some service developments that by 2015 had been implemented.

Then in the second move in the presentation of this story, one of The Company representatives who took part in the workshop stepped in. He gave a more detailed description of what it actually meant to be tied to the farm through technology and the complexity of this technology. This description was based in instantiations and discussions from the workshop.

A third move contained a concrete example of a new service opportunity with a service team coming to take care of the farm. And this time the director of the portfolio stepped in and provided some details on this service. Worth noting here is that this idea of the vacation plan was not present in the workshop, but it was present in other parts of the research material such as interviews and pre-meetings with representatives from The Company.

Scene 3 – Service booking 2015

The background image was two hands typing on a computer, and an inserted image of a webpage illustrating the new service platform (MyCompany), see fig. 7-11. The tag line: "Great overview of all service…"

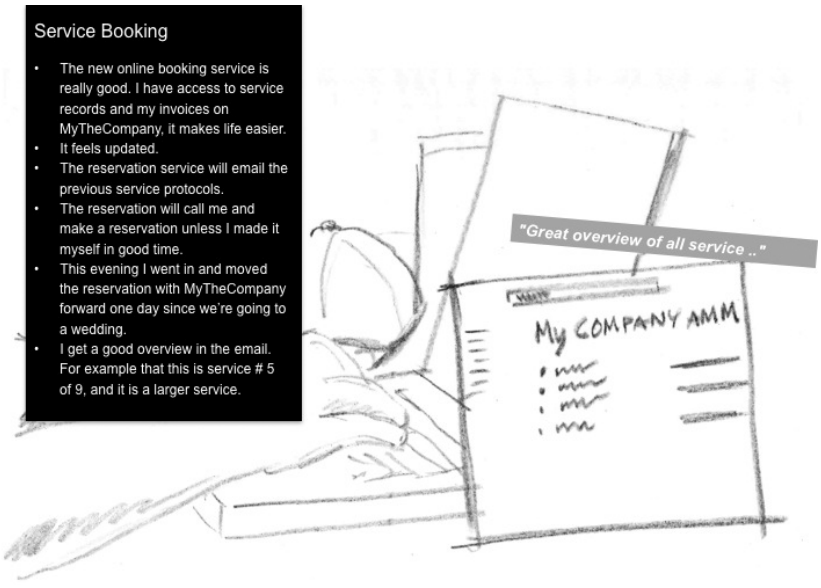


Figure 7- 11 Scene 3 in the 2015 Scenario

> The farmer can find and retrieve the relevant information through a service platform, which gives a good overview. The service booking is pro-active and contacts the farmer when needed, for example, mailing the service protocol after completed service. The farmer can also decide and rebook the service himself through the service platform.

This story connected to the instantiations and the 2010 scenario, in that it addressed issues that were previously brought forward. But it did not recapture or relate directly to the farmers' or others' accounts. An implemented solution was built into the scenario, the service platform MyCompany, where the farmer could access all the information about previous and future services via Internet, mobile device and phone. The farmer was thus not tied to the farm office for retrieving this information. In this narrative every problematic situation was met with a thought-through solution.

Scene 4 – The day of service 2015

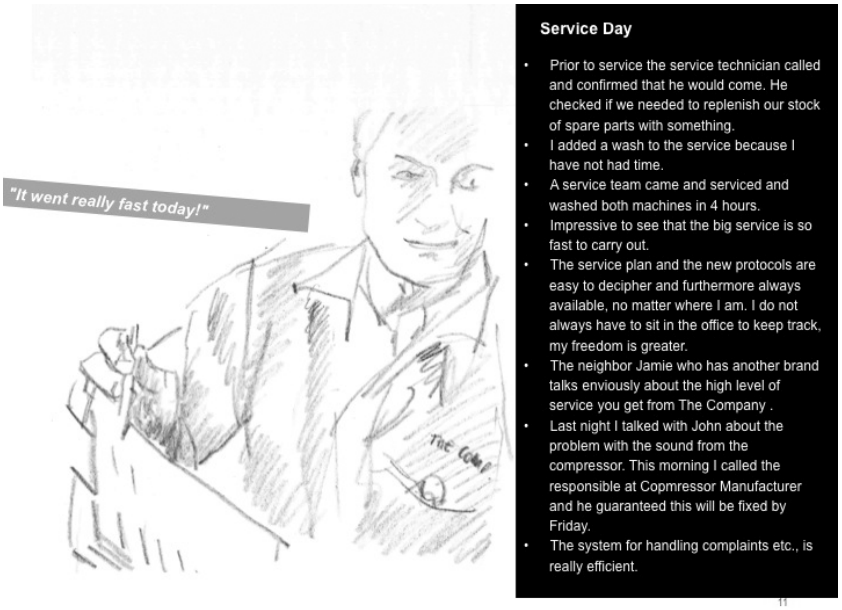


Figure 7- 12 Scene 4 in the 2015 Scenario

The scene was presented by an image of a service technician holding a pen and a service protocol, seemingly describing what has been done by going through the service protocol, and looking at someone outside the picture, fig. 7-12. The tag line "It really went quick today!" set the frame for the chronicle that could be described as:

> The service technician contacts the farmer before service, so he can point out his needs. This time he ordered a pre-service wash.
> The equipment is washed and the service is completed by two service teams. It goes fast. The farmer understands what is done and thinks they are doing a really good job. He is also a free and proud owner of this equipment. Another issue is solved through a third partner collaboration.

Similar to the previous scene this story responded to issues that were articulated in the 2010 scenario. In addition a specific example was given - the compressor story – which was reframing of an incident told by a farmer at the workshop. The plot was simple and straightforward: the service was completed and communication done according to the farmers' demands.

Scene 5 – Outside the barn 2015

This was the only scene that had a different title from the 2010 scenario. The 2010 title was "At the desk", and was set in an office tied to a computer. The 2015 was set outside the barn with the background image of a smiling farmer in front of some kind of machinery decorated with logos (presumable an AMM). In addition the MyCompany interface was shown, this time on the display of a smart phone, fig 7-13. The tag line was: "Always there, always ready to support…"

Figure 7- 13 Scene 5 in the 2015 Scenario

The chronicle:

> The farmer now has more knowledge and has gone through an educational program. He therefore understands his system better. He has a better overview of costs and what is included in different services. In addition there is now a remote 24-hour service desk that helps with everything.

Similar to previous scenes, new services have been implemented: structured educational programs, the service platform and the 24-hour service desk. All these supported the farmer in achieving his goals with his own operations. The plot was accordingly that the farmer with the support of the company felt empowered and in charge of his own farm.

The scenarios as emplotted narratives

The scenarios contained several plots that, to varying degrees, reached a resolution or a new equilibrium, with the plot developing throughout the scenes. There were distinct differences between the two scenarios, the first re-describing distinctly problematic experiences, and the second presenting solutions to the issues described earlier. One way of reading and understanding plots is to relate to the structure of folk tales and different genres. In the following interpretation I have conducted this type of structural narrative analysis for understanding more about how the designers retold the stories and also the different characteristics of the two scenarios.

2010: A Romantic tragedy of Technology Dragon and Prince Always Standby.

Let's once again look back at the scenes and the moves that were made through the development of the scenario.

In the emergency scene, the farmer attempted to solve the situation by himself, did not succeed, and was luckily saved by the service technician coming out in the middle of the night to apply his tools and competence. The investment was a story of success: the new technology transformed

and changed the work life. It was different and better. The scene of Service booking contained new complications. The farmer was subjected to the poor planning of the service technician, which affected the farmer's operations and organization. The scene also hinted that maybe the planning problems should not be blamed on the service technician as a person, but on a structure behind the service that was not fully supportive. The Service day scene showed how the private life and professional life of the farmer were integrated. The service technician helped the farmer with the milking and the farmer wanted to be involved in the service. Everybody wanted the best but it didn't work and the day ended with unfinished business. In the last scene, At the desk at night, the farmer used his own resourcefulness and obtained the support he needed, but this violated the regulations of the company's structures and planning.

The five scenes presented a story of the farmer as being somewhat trapped in the new technology, a technology where he did not have the same control of the milking procedures as he used to when he milked the cows two times a day. Then he was a victim under what is commonly known as the 'white whip', having to milk the cows at specific hours every day of the year.

In the emergency scene the service man who was always ready came to save the situation, the malfunctioning technology that woke up the farmer in the middle of the night, and that he couldn't tame himself. Although not in control, the farmer was very happy and content with the investment in the technology: it had immensely improved his working environment, his productivity, and he now had the perception of a new life with slightly altered conditions and new processes to attend to, but still an improved life.

Drawing on the rhetoric of a folktale, the farmer was given the role of a princess in this romantic tragedy, trapped by the technology dragon, and saved by the service technician taking the role of the prince. This was in line with the description of the narrative form romance. According to Czarniawska (2009), romance is focused on a single character and his or her potentialities. However, in this case there was also a notion of restriction, and in tragedy the human kind is subjected to a number of laws of fate. Both the princess and the prince were restricted in their actions by the system, that is, the company's structure and routines that could be seen as the castle in which they acted.

The farmer could have been given a more classical role of a passive and compliant princess in the romantic story but that was not the case. The princess relied on her own resourcefulness to get what she wanted from the system. In the last scene the princess has learned to 'hack' the system, meaning she used it in un-intended ways. How the system responded was not part of the emplotted narrative: the emphasis was put on the relation between the princess and the prince. However, the princesses' wish for independence and knowledge to be able to better manage the processes that have implications for her life was a subtext.

I would argue that in this story the designers brought forward the farmers' resourcefulness together with their whish to learn and to gain independence; the dependence upon The Company's resources was a parallel plot.

2015: An Epic romance of an Utopian Future where the Farmer is the Master

The references to the problematic situations presented in the 2010 scenario ran like a red thread in the 2015 scenario. However, in this scenario the roles were assigned differently.

In the first scene, the narrative itself did not contain much information, but the following discussion revealed that the service technician as a prince who comes and saves the farmer and his cows was a relevant reading. However, it seemed that the designers did not pick up on this aspect of the emergency service but only read it as a situation that should be avoided at all costs for both parties. What the designers read as a "tragedy" that should be avoided at all costs, was actually a romantic drama with a happy ending. There was the implied sub-narrative of emergency service when something was severely broken, but the costs of hurt cows, stopped production and so on, were immense. So the service technician was more than welcome to come and fix it. From the organization's point of view this was a unique point of delivery, where they knew their personnel could fix almost everything – as a super hero.

The second scene treating Investment presented a farmer who now had knowledge and was supported when he needed it. Now there was a remote support that could take care of almost all the problems and almost replace the service technician. Further, the vacation service took

it one step further where The Company had the opportunity to sell both their competence and time, but on the farmer's terms and conditions. The Service booking scene reinforced the attention paid to the farmer's situation and longing for independence highlighted in the 2010 scenario. The designers had developed a new digital service platform that answered all questions, while the farmer acquired an overview and also a tool for managing his service plan. In the fourth scene, The Service Day, the farmer received the ultimate support from a washing service and then a double team that serviced the equipment with great efficiency. In addition, The Company dealt with a third party issue and the farmer received the help needed to achieve a satisfactory solution. In the last scene, Outside the barn, the farmer was given the ultimate position of being in control, not being tied to either technology or channels for communication. And the Company was given almost magic properties of being able to provide support in all situations through the MyCompany site and 24-hour desk support. However, it was also through the support of the Company that the farmer acquired this new knowledge and feeling that he is in control.

These five scenes told a different story than the previous one. In this story the farmer was placed in the central position. Whatever obstacles he encountered would be solved by an almost alien force: a 24-hour remote service desk and the MyCompany website. From the perspective of the farmer this scenario could be read as an epic romance, a story of grandeur and heroism where the main persons' potentialities had blossomed. The company was no longer the metaphorical castle that set the limitations, but the force, the energy that would make the farmer stronger and more independent. At the same time the farmer was aware of his own central position in this universe and could use his powers to change the events and actions according to his will and needs. In addition he could empower himself and become the master with knowledge and experience through a close relation with the force – The Company.

The Romantic tragedy versus the Epic romance

Something changed in the interpretation of the users experiences, captured to some extent on the instantiations and then retold to the

company through these two stories. The designers emplotted the farmers' accounts, meaning they introduced a structure to the accounts by turning them into a tale. In the Romantic tragedy the service technician was given the role of the hero and the farmer was an interested and resourceful but not entirely independent princess. In the Epic romance version the roles had dramatically changed and the farmer was instead the one with the powers, and the service technician as a person had more or less disappeared from the stage and reappeared in teams or through remote service. Instead The Company as a more fuzzy entity took over direct communication via different mediating functions. From the perspective of the farmers this was both interesting and attractive, from the company perspective this could be quite threatening.

First, the interaction with the farmers relied on the service technicians as a very valued resource and competence. The technicians were respected within the company as competent individuals and the managers present all acknowledged the character it took to be able to do this type of work.

Second, the role of The Company was altered, although the mission was to be there whenever the farmer had a need, it was quite a change to actually redirect the offerings to respond to the farmers' needs and behaviors. The role for the company was about being a supportive backdrop to the farmers' operations, instead of entering the scene in a heroic manner as the saver.

Third, the managers in the meeting for the most part already knew the propositions included in the future scenario. The scenario showed the potential experiences from the farmers' perspective once implemented. However they neglected entirely the complexities of the implementation per se.

Conclusions

The designers recaptured the users' stories in three different ways. First, they used them to back up the findings, second, they referred back to stories told by the farmers when presenting the scenarios, and third, they used the accounts and stories as direct input and inspiration for the scenarios presented as the final delivery.

In the 2010 story the problematic aspects were emphasized, quoting directly from experiences told by the farmers. Although satisfactory solutions were achieved in the representation, there were layers of tragedy or dissatisfaction as hidden meanings. When a solution was reached, for example through a service technician's heroic accomplishment, the production was saved. However, the farmer maybe would have wished for a less heroic solution, or perhaps that there was no need for these types of situations at all. In the 2015 scenario the narratives were smoothed out. The scenes presented were very successful and could be seen as an epic romance with connotations of a utopian future. Every difficulty and problematic situation was solved in a nice, smooth and seamless way. In this scenario ideas of possible solutions were integrated. The scenes all had a happy ending, sometimes due to a magic wand taking the shape of the 24-hour desk service or the MyCompany website where all information was collected and all communication was channeled.

These ideas could be critiqued for not taking into account the organizational aspect and the difficulties of implementing these ideas. Instead the scenario presented easy solutions that also covered up many of the difficulties included in the implementation of the same. However, in defense of the designers in this workshop, they had little time, as is often the case, and the main aim was to achieve a greater and deeper understanding of the users and what they understood as value-creating activities from The Company. The purpose was not to come up with new ideas per se but to obtain background material for further ideation. In the proposed progression of the project iterative workshops with more farmers and service technicians were in the plan.

With the explicit purpose of the service design pilot project in mind, the 2010 scenario becomes the most important. This scenario displayed how the farmers perceived the situation and encounters at that time. The 2015 scenario was less an exposé of ideas than an exposé of how the farmers would like the service to be in regard to encounters, independency, transparency and control.

The problematic situations seemed to be what could be called semi-emplotted since they did not reach a new satisfying equilibrium. In the cases where they achieved equilibrium, the complications to get there were far too many to be perceived as satisfying. In the presentation this openness seemed to invite discussion. The discussions that took place

proposed different endings to the narratives, different closures.

I would argue that the discussions triggered by the 2010 scenario are the real outcome of the project since the openness of these different situations invited the people around the table to take part in the ideation from their perspectives, although maybe not voluntarily. This invitation could potentially help to achieve ownership for further development.

The designers identified time, knowledge, communication and roles as important themes to continue to work with, especially how they emplotted the scenarios' knowledge and roles. The subtext of independence and transparency that was very strong in both the scenarios was not explicitly spelled out.

Further, there was a distinct difference in how the designers articulated the two scenarios. Although the text was similar on the presentation slides, the oral account was different. When the presentation moved from the problematic present to the ideal future, the designers used 'I' to a larger extent and also held the narrative more together by keeping to the main scenario and allowing less interruptions than in the other scenario.

The two scenarios could together be read with narrative glasses, as some kind of meta-narrative. Then the scenarios represented the beginning and end: a troubled situation in the 2010 scenario and a new more harmonious one (from the farmer's perspective) in the 2015. However, the events that caused the changes were lacking. In a sense this could be seen as a narrative with an incomplete plot. The logic that tied these two together was there, the intentionality for doing the changes was spelled out clearly, maybe too clearly in the 2010 scenario, whereas the new equilibrium that was painted in the 2015 scenario was a dream from the farmer's perspective might be difficult to accept from the company's perspective. But the roadmap, the structure for how to move from the first to the second state was lacking.

In conclusion, the designers could thus be seen as narrators of the present rather than of the future. They used the accounts of experiences and instantiations from the workshop as design material, and they reorganized and synthesized these into two emplotted narratives. In conducting this analysis I show that the designers in so doing added a structure, a plot, for how the scenario should be told and represented.

8

Exploring the instantiations as materializations

This analysis continues to explore the facts/meanings relationship. In the previous analysis the focus was on the relations between the instantiations and the scenarios, and what was changed in the scenarios per se. In this study the focus is on the instantiations. The rational for this analysis is to explore what the designers pay attention to in the users' accounts during the workshop. Eriksen (2012) states that designers materialize what they find to be important and of interest for their further work. Thus the instantiations are seen as the designers' materializations of the farmers' accounts and stories told in the workshop. These are brought from the workshop and then re-materialized in the scenarios.

Method of analysis: thematic analysis of instantiations

The instantiations, as the physical output from the workshop, were in focus for this analysis. The instantiations can be seen as the designers' direct interpretation and materialization of the farmers' accounts. All in all, 28 instantiations were made and 113 sticky notes collected as physical output from the workshop, including an additional situation/theme with a single instantiation that emerged during the workshop. (See Figure 8-1.)

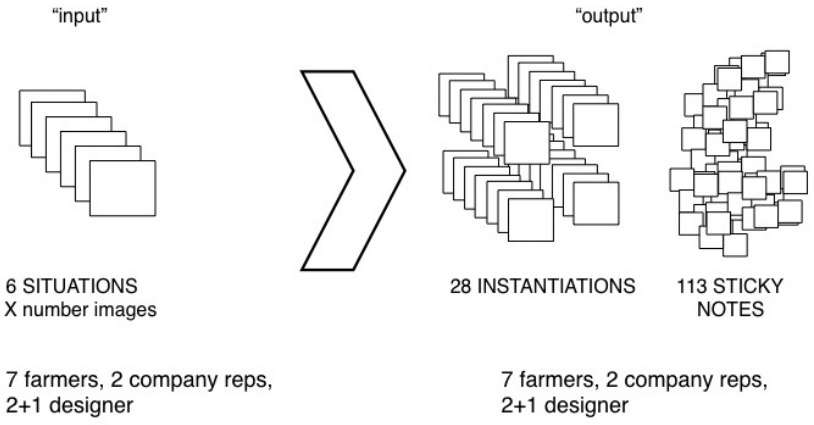


Figure 8-1 Physical "input" and "output" from workshop

Whereas the structural analysis is a narrative analysis method, the thematic analysis in this case is an analysis *of* narratives. Here I have been instrumental and used a traditional approach to thematic analysis, based in coding and construction of themes (Braun & Clarke, 2006; Hayes, 1997). Braun and Clark argue that almost all analysis is essentially thematic, however, it is important to make previous assumptions and research positions explicit for evaluation of the research. Unlike narrative analysis where the entity is preserved, thematic analysis looks across units of analysis to find categories or themes. The method does not require rigorous technique such as in grounded theory, for example. It is important, however, to state positions and explicitly discuss choices and decisions made.

For example, in terms of coding, what counts as a theme must be made explicit, since the relative importance of codes is more important than their quantity. Further, it must be stated how the data set will be represented and if the coding is inductive (strongly linked to the data) or theoretical, using predefined codes and driven by an analytical interest. Hayes (1997) proposes that a more reflexive approach to thematic analysis can be achieved through the use of theory to provide a priori

direction.

According to Braun and Clark there are six steps or phases of analysis: (1) familiarizing with the material, including transcriptions etc., (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and finally (6) writing the report.

In this study the first step is accounted for above, both in the case description and in the description of how the unit of analysis were defined. The second phase was conducted when I reviewed the literature and identified predefined codes in relation to literature. Thus I attended to a more theoretically informed coding, although kept an open mind for adding empirically derived codes. Following the larger pattern of inquiry that this study rests on, moving between concepts and empirical observations. Having selected the theoretical codes and added empirically derived codes in a first reading, a colleague coded the data in parallel[37] the procedures for this are described below. Similarly phase three was done in collaboration, and 4-5 as described below.

The analytical framework

The purpose was to explore if it was possible to distinguish what the designers paid attention in the instantiations through materialization. Based in the literature reviewed in chapter three the following themes were predefined: 1) service characteristics as understood in IHIP sense and relations to artifacts and objects, 2) attention paid to user/producer spheres and 3) attention paid to a broader scope in line with service as value creation.

Predefined codes were: Relational, Activities, Inter-action, Object-artifact-system, and Process.

Procedure for coding and categorizing

The instantiations were each given an ID as described in Chapter 6, then coded independently, using scanned copies of the originals. During the initial coding of the instantiations conducted by me 11 empirical categories were added to the predefined codes: Integration, Cost, Human,

37. This analysis and the findings thereof is published in (Wetter-Edman & Magnusson, 2013) connects partly to a different body of literature.

Knowledge, Understanding, Place, Intention, Time, General – as a general description, Organization, and Motivation. The coding scheme developed in a spreadsheet was shared with the other researcher without discussing outcome or codes in detail. He independently coded the same material using the existing codes.

The analyses by the two coders were combined and differences discussed and settled. My colleague had not been present at the workshop and had not reviewed the video-material. It soon became apparent that he found it difficult to make sense of the instantiations with their short and disembodied descriptions, and had thus found fewer relations between the instantiations and the codes. Therefore, when reviewing the coding together, I added informally information not captured on the instantiations with the purpose of making them more comprehensible. Then transcriptions and instantiations were coupled as described above in the unit of analysis section.

After this collaborative review of the codes, three codes where found redundant and thus excluded: Intention, General and Motivation. Most differences could be concluded to be due to differences in preunderstandings of the material. In the discussion of the codes there was also an expansion of the codes. For example, integration expanded into *co-creation/co-production*: farmer and company resources are integrating/collaborating with the aim to reach a result, and *conditional integration*: one of the partners is affected by the other partner's actions, although the outcome still depends on an integration of their resources. Organizing expanded to *OrgU*; organization of the users resources and *OrgT*, organization of company resources. A secondary reading of the material with the expanded codes was conducted in order to settle if these codes where in line with the data material, it was found they were.

The further interpretation and thematization of the material, phase 4-5, for the analysis presented here, was conducted by me, by relating the codes and themes to materialization practices discussed in Chapter 5. Three themes describing what the designers paid attention to in the materialization of the accounts in the workshop was developed, further treated below. During the 6th phase, writing the report, the instantiations and transcriptions were transformed into written narratives, below called vignettes. This was done for facilitating the presentation and making explicit what was at stake in the respective story. The vignettes are

based on the designers' instantiations, observational data, video recordings and reading of transcriptions.[38]

The themes will be further developed below. First a presentation of the empirical background and vignettes will be provided for making the analysis and findings comprehensible for the reader.

Empirical background and vignettes

The background of the case and the workshop format was described in Chapter 4; this section provides a short background description of the dairy farmers' situation.

The promise of the installation of an automatic milking machine (AMM) is essentially that the farmer will be less time and place bound as the milking process is automated. The farmer is no longer a slave under 'the white whip' – the need to milk the cows two times a day on set times. The AMM milks the cows 24/7 when the cows enter the machine on their own. The farmers seem to be quite aware of the fact that this will not be the case – there will still be problems. However, they are possibly not aware of the full consequences of the installation before it is done. The introduction of this high technological equipment in the farmer's context brings with it some radical changes.

Vignette 1: From manual to high tech – trapped in process

With manual milking systems the entire day at the farm is organized around the milking hours; with the AMM the daily agenda becomes more fluid. The control of employees, what they do, how they do it, and so on, is not as easily monitored as before. The system may give a false security of functioning well and also of freedom, that you could leave the farm as you wish. However, when there is an alarm, the farmer needs to get there quickly, a cow may be trapped, for example. And before, when wanting to go on vacation, or just leave for a weekend, the farmers could call in a replacement from the 'farm replacement service'. Now, the farmers don't really dare to go away because the system is so complex and they do not really trust anybody to monitor it if they are not close by.

38. Also used in Wetter-Edman & Magnusson (2013).

Vignette 2: Preparatory milking

When maintenance service is carried out on the AMM, the milking procedures and routines are disturbed. During certain operations the AMM cannot concurrently serve any cows for milking, for approximately an hour at a time. Accordingly the milking procedure either needs to be done before maintenance, or carried out manually in parallel. A regular maintenance service takes approximately 4-6 hours per AMM. Often this preparatory milking is taken care of by the famers before the service technician arrives at the location. If the service technician is expected at 8 AM, the farmer probably has started milking at 5 AM in order to be finished and ready for service. Some service technicians assist with the milking, shortening the preparation time, but also lengthening the time at the location. Occasionally it happens that the service technicians receive an emergency call during the night and have to cancel a scheduled maintenance service. Due to nightly hours the service technician calls the farmer just before scheduled arrival. However, the farmer has then already spent 3 hours milking in preparation. As one farmer said "He could just have sent a text message, and then I would've known not to go out to the barn."

Vignette 3: Good service requires clean equipment

The AMM needs to be clean and newly washed before service is performed. The nature of its use and placement means that this highly technological equipment is placed in an environment where both dirt and manure quickly soils the machinery. Washing and cleaning the AMM prior to service is currently expected to be done by the farmer. Some farmers do the equipment cleaning before service while others do not, either because of lack of interest or lack of time. If the AMM is not cleaned then the service technician has to do the washing upon arrival at an extra cost. Given the relatively long time it takes for a regular maintenance service this adds to the perceived already high cost for the service.

Vignette 4: Invoices and protocols

When the service is done, a service protocol is written. Earlier, the protocol was written at the site and then placed in a folder in the barn office, close to the computer that is connected to the AMM. After some re-organization in the industrial organization, the protocols are sent by

mail a few days after the service. For the farmers this means in practice that the protocols often end up in the house, away from the machinery, in the kitchen or in the farm office. However, the protocols might be needed in the barn to refer to if something happens to the AMM, because the protocol is where previous changes and services can be found. The service protocol also serves as support for the invoice that arrives separately. The invoice is easy to comprehend, the dates, hours spent, spare parts etcetera total up clearly. Sometimes the farmer wants to check what has been done in relation to the invoice and they have to refer to the service protocol, then it might be good to have them in the farm office. The protocols are more complex, full of technical details, referring to article numbers and check boxes. The farmers claim they are really difficult to interpret.

The findings

Through the analysis it was found that the designers paid specific interest through materialization to the following three themes: 1) Service characteristics and socio-technical contexts 2) Resources through the farmers perspective and 3) Dependencies and tensions. Below I describe the themes and the categories in relation to the analyzed data.

Service characteristics and socio-technical context

In line with the predefined service characteristics, the designers did pay attention to the relations, activities and interactions that make up the service offering. What stood out in the analysis was that only 1/3 of the instantiations could be analyzed as saying something exclusively about the producer or user sphere. Instead 2/3 told stories about the relation between these two spheres, thus situating the materializations in the joint value creation sphere. This draws attention to the situation and context in which the farmer acts.

The textbook design literature argues the importance of understanding the users' context and what constitutes it without providing further details. Context is framed as what surrounds and affects the interaction with the product/technology. Additional analysis showed that a majority

of the instantiations treated technology or interactions with technology – the AMM equipment – just briefly, or not at all, instead focusing on the farmers' experiences and perspectives. In these descriptions the farmers' processes and practices where given priority.

In Vignette 1 a complete transformation of how the farmer needs to organize the daily work around the AMM wass described. Although the work was still organized around the activity of milking, it was not the cows that set the pace but the machinery. The designers asked the farmers, *How is work at the farm at large?* thus not inquiring into the AMM per se to capture the work pace. The social aspects of how it was to be a farmer with an AMM then became visible.

In Vignette 2 the time spent milking was not the matter of concern. Of course, not even a farmer appreciates being up in dawn without a reason, but if necessary will do so for the sake of the cows. What was important in this case was the relation between the farmer and the service technicians and the lack of communication that affected the farmer. The situation in itself could be easily solved, but it required that the client company, not the individual service technician, take an outside-in perspective. For a routinized solution the company have to understand the implications of lack of communication on the farmer's activities.

In Vignette 4 the beginning was about the protocol and invoices, however the focus was on how the farmers used them in practice and how they experienced that use. The question posed was about how the farmers experience billing. Then the narrative moved from the specific AMM to the nearby barn offices still connected to the technology. But it also focused on the farmers' houses and the offices they had there for all their farm-related businesses. The narrative told something about how the farmers moved between these places, what they thought were relevant things to do in each of them, where they placed the protocols, what they needed the protocols for.

The narratives above exemplify that it is not what the farmers or the service technicians do with technology that is in focus, but that the interest is on what the technology does in and with the farmers' context. The instantiations focus on relations between the user and the technology and how these relations affect the farmer's everyday life. This extends the scope of the service characteristics to include the farmer's socio-technical context.

	Service Characteristics and sociotechnical context		
Relations	Activities	Object/artifact/system - indirect	Process/routine

Table 7 Summary of theme and categories theme 1

Resources through the farmers perspective

The initial situations that were brought into the workshop consistently asked about previous experiences and memories. Either they focused explicitly on the users own experiences, or asked if they could retell specific events of good or poor remembrance. That is, the farmers were asked to tell about things they knew, things they have experienced, and thus reflected on the existing relation they had with The Company.

This was captured in Vignette 3 where the focus of the industrial organization was to maintain the equipment in good condition. The Company demanded that the equipment be all set and ready for the service technician when he arrived, not taking into account the farmer's situation and need of support for managing his own organization – the dairy farm.

Looking at existing service offerings from The Company at that time, it can be concluded that the main reason to do service from the industrial organization's perspective was a functional or technological need prompted by the technology – the Automatic Milking Machine. However, by paying attention to the resources and the direct and their indirect interaction rather than the product per se, another direction was suggested. This showed what supporting the customer and their value creation activities prior to the product could mean to The Company.

One example was the above-described issue concerning when the farmer received the service protocol in relation to the invoice (see Vignette 4). It could seem like a minor issue whether the service technician gave the service protocol to the farmer directly after performing service, or mailed it afterwards. But from the farmers' stories it had a huge impact on their way of organizing their business. The designers thus brought forward that, 'when and in what order' activities occur

could in some cases be essential for the farmers. In relation to the same instantiation, it also became obvious that the protocols were difficult to understand as they were designed from a technical perspective, not easily understood by the farmers.

Through the materialization of Vignette 2, the designers said that that small changes in the routines could make a huge difference in convenience for the farmer. In the example the service technician received an emergency call during night hours and had to cancel the upcoming planned service the day after. This was normally done with very short notice, at least from the information given by the story. Here the solution was even provided within the story: it would be better if it was routine that a text message be sent to the farmer cancelling the planned service. In general several of the instantiations displayed how the actual behavior of the service technician – being friendly, stressed, tired, and so on – strongly influenced the experience of the service.

The materializations consequently represent the resources from a user perspective, which is to be expected. However, what is brought forward is how the resources are used and what this means in relation to the farmer's own organization. Thus the materializations show how both the farmers' and the organizations' resources and practices are important.

	Resources from the farmers perspective		
Knowledge & Understanding	Time & Place (as procedural)	Human aspects	Object/artifact/ system - direct

Table 8 Summary of theme and categories theme 2

Dependencies and tensions

A characteristic of service is as mentioned earlier its co-creative character. This implies that resources from both the provider and customer spheres are integrated in service delivery. In both the themes described above the tensions and dependencies between the farmer and The Company are materialized and exposed in the instantiations.

Both the 2nd and 3rd vignettes exemplify an integration of resources.

Here the farmer prepares the equipment, and effectively his production units – the Cows – for service that will be carried out by the service technician. The farmer uses his organizational resources for facilitating the service organization in doing its job, and also supposedly for minimizing costs, for mutual benefit what can be seen as co-creation. But the narratives also show that this co-creation is not unproblematic.

If any of the partners do not do what they are expected to do there are implications for the other party. This might be called *conditional integration*, meaning that one of the partners is affected by the other partner's actions, although the outcome still depends on an integration of their resources. In Vignettes 2 and 3 the possibility for the service organization to do a successful job relies on the farmer's preparations. In Vignette 2, the omission of the service technicians to communicate effectively with the farmers has a big impact on the farmers' activities and daily work. Similarly in Vignette 4, the re-organization of sending out protocols affects the opportunities for the farmers to understand the protocol and what has been done to their equipment. When the protocols were handed over at the completion of service, there was always an opportunity to also go through them together. With mailing, an unintended effect was that the protocols now tended to end up in the house, not the barn close to the AMM.

Understanding how the farmers move and interact with the invoices and protocols brings focus to the contextual aspects of service. How this integration is carried through and possibly altered is an area open for new interpretations and thus potential innovation.

	Dependencies and tensions			
Co-production / Co-creation	Conditional integration	Organization of *either* user or company resources	Cost	Timing (as important for the experience)

Table 9 Summary theme and categories theme 3

Conclusions

This analysis explores what the designers pay attention to in the materialization of the users' account in the workshop. This is done through a detailed analysis of the instantiations made by designers and the farmers' accounts of their previous experiences.

Materializing service characteristics and socio-technical contexts

It was expected that what the designers materialized would show a focus on the service characteristics since these are aspects that are used for improving service design. It was also expected that the workshop would provide information about the users and their context since the designer selected this method and developed it for this purpose. However, it was quite a surprise that the focus on the socio-technical contexts was so pronounced and that the actual products were quite marginal. Traditionally, the description of context is any thing that surrounds the use of a product. In this workshop the use of the product was not in focus, instead the focus was on the effect the product/system and the interactions with the service providing organization had on the customer's life, which extents the dominant conceptualization of context.

In the research on experience-centric services context has been discussed as consisting of the physical and relational elements in the experience environment, including the physical setting, the social actors, and any social interactions with other customers and/or service facilitators (Gupta & Vajic, 2000; Zomerdijk & Voss, 2010). This study shows that these contextual aspects are important even in industrial services.

Further, the materializations of the user's account can be seen as a way to operationalize this understanding of context. Context is often understood as a somewhat blurry description of almost everything and everyone that is involved before, during and after a specific service encounter. By exemplifying the farmers' practices in the instantiations the designers made the context explicit and possible to work with for future solutions.

In addition, the attention paid to resources and how they are integrated suggest that the designers have an implicit focus on value co-creation. The designers' materializations of resources and their interactions

embed a shift from a traditional understanding of services as products to an expanded understanding of service as value creation.

Materializing tensions and opportunities

The materializations document what specific activities and interactions mean in and for the customers' everyday and professional life. This is often done through the display of tensions between the user and the company's organizations. Something perceived as positive from one perspective necessarily has implications for the other. Several of the instantiations include these dual perspectives, bringing this forth exposes an opportunity for further development. This findings mirror what Kimbell writes about tensions in service design "On the one hand, service designers pay attention to the artefacts that are part of services, but on the other, they are concerned with how the relations between people and artifacts create value or result in change." (Kimbell, 2013, p. 15).

This analysis also suggests that the designers use an implicit practice perspective by focusing on the users' practices showing how the industrial organization affects them, inhibiting some and promoting others.

9

Discussion and Contributions

The overall aim of this thesis was to further develop the connections between design and service logic through continued development of the Design for Service framework. In this thesis this was done through exploring the contribution of designers for involving users with the purpose of doing service design. In this work I have engaged in an inquiry interlacing conceptual and empirical studies, and explicitly spelled out this development throughout the text. I will in this chapter first recapture the separate results developed in the different sections of this thesis, then move on to discuss these findings in terms of contributions in relation to Design for Service and the propositions developed earlier, and last, present implications for research and practice.

Summarizing the findings

A pragmatist pattern of inquiry has been applied and as such the development of thought in this thesis has moved between the 'realm of meaning' and the 'realm of facts' (Dewey, 1938). Drawing on a Deweyan pattern of inquiry the beginning of the inquiry has its roots in my previous practice as a design manager. There I had the feeling that designers and their methods attended to users and their involvement in a different way than people from other disciplines. The inquiry reported in this thesis

addresses a more specifically framed 'doubtful situation' related to the changing role of design and designers. Namely, designers increasingly attending to the development of new service through service design.

Service design and service designers involve users by using methods and approaches from a variety of disciplines. Mostly from product design, interaction design, and human centered design together with service marketing and management are the most noticeable. Such development was explored based on readings in both the design and service literatures and connections were established between (service) design and service (dominant) logic thinking, then the *Design for Service* framework was developed for further integration of these two areas. I took an explicit interest in, and focused on how actors were involved in the respective bodies of literature. Accordingly, a literature review was conducted presented in Chapter 3. The review established that:

- The relation to users in the literature differed: in design the relations were conceptualized as being user-centered, participatory and design-driven. In both the user-centered and design-driven approaches the designers take on an *intermediary role between the firm and the user*. The relation to customers is not discussed in detail in the service innovation literature, the relation is seen as a direct involvement between a customer and the firm. An intermediary *is not attended* to in this literature.
- The rational for involvement in the design literature is to get information, inspiration and to achieve empowerment of the participants. In contrast, the rational for involvement in service innovation literature is to gain information, innovation and effectiveness.
- In addition, according to design literature, designers involve users with the purpose to achieve a *subjectively judged good design object*, whereas the focus for the customer integration and service innovation literature is to establish *where in the process* the users/customers should be involved for business success.

From these diverging understandings of how users should be involved the inquiry moved to the realm of meaning – the field. The empirical inquiry takes its starting point in questioning design(er)s' contribution as intermediary in relation to the involvement of users and other

stakeholders. In the problem-solution phase I studied a service design pilot project conducted by AllDesign with The Company. The purpose was to explore *What is going on when designers act as intermediaries in between the firm and the users with the purpose of doing service design?*. The case analysis suggested that the *designers worked with stories as design material* rather than with physical material and traditional visualizations such as mappings and customer journeys as expected from the general discourse on service design.

The inquiry then returned to the realm of facts to develop concepts and find methods useful for exploring in what ways stories can be understood as design material, and what the designers achieved with the use of stories. Drawing on theories of narrative analysis in social sciences and materialization practices in co-design the inquiry returned to the realm of meaning. The purpose was to investigate the relevance of these concepts and the implications of interpreting the empirical material through these theoretical lenses would be.

Narrative analysis revealed that:

- The designers' use of stories could be understood as *interpretation of the users' experiences*.
- The interpretations consisted of the *organization and reformulation* of the different user accounts into coherent scenarios that *rematerialized the users' experiences*. The interpretation can be seen as a narrative inquiry, constructing new emplotted stories from the various and independent user accounts. Through the narrative inquiry a plot is created, and the experiences are organized around this.
- The designers' main contribution doing the interpretation in this case was the *narration of the present scenario*.
- It can be *questioned if the designers possessed the (aesthetic) skills for working with stories as design material* with the same (level of) aesthetic expression as they do in materials they are more accustomed to using.

The materialization framework and thematic analyses showed that:

- The designers did work with *the stories as design material* through materialization in the workshop and rematerialization in the final scenarios.

- The designers materialized the users' accounts. They paid specific attention in this materialization to the *users practices* and how The Company's activities *affected the farmer's own situation*.
- This can be framed as they paid attention to accounts of *value co-creation* and *value co-destruction* practices.

Below I will discuss these findings in relation to the Design for Service framework and relevant literature. I will first summarize the framework and key-points of departure in this study and then move on to develop the discussion.

Recapturing Design for Service

A framework or model that integrates both design and service research approaches to service design has been requested and also constructed by both design and service scholars As discussed in Chapter 3 the service based frameworks have been modeling design on accepted methods and tools in service research where a managerial interpretation scheme is dominant. Design is seen as a specific phase and very little space is given to the actual design activities based in artistic/aesthetic knowing (Edvardsson *et al*., 2000; Patrício *et al*., 2008; Patrício et al., 2011). Previous design-based frameworks coupling service logic and (service) design omit discussions of the multifaceted design concept, or position designing for service as a special case of design (Kimbell, 2011a; Meroni & Sangiorgi, 2011).

Design for Service as presented in this thesis, is a framework that makes use of the analytical definitions of value co-creation, resource integration and service systems from service logic together with methods and approaches for understanding people and experiences through participation and design. This framework enriches design research and discourse by framing its contributions in terms of value creation. Hence enhances the possibility of situating design practice, its approaches and methods in a central position for the ability to achieve value creation. Value creation is in the heart of any business or organization, regardless of whether it takes place in a business or public service context. Conversely, a design approach is essential for the practical realization of service logic.

In Chapter 3 I developed the Design for Service framework, based on the publications (Wetter-Edman, 2009, 2011; Wetter-Edman *et al.*, 2014). Four propositions were presented:

1. Design for Service explores existing service systems and proposes new ones.
2. Design for Service provides approaches for understanding context and experiences from the actor's perspective.
3. Design for Service extends the meaning of value co-creation to include value co-creation in designing.
4. Service logic provides a theoretical framework for understanding and analyzing Design for Service practices and contributions.

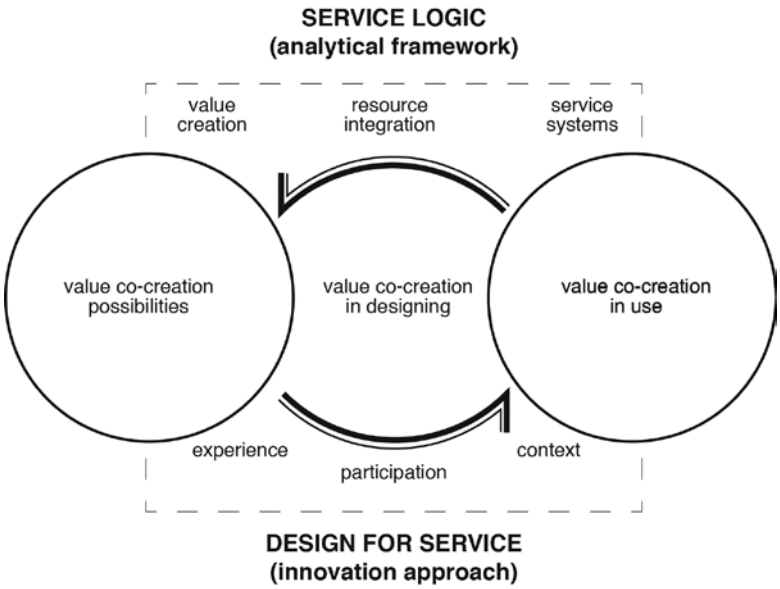


Figure 9-1 Model of Design for Service Framework Source: Wetter-Edman *et al.* (2014)

These four propositions are combined in the figure above fig. 9-1, where service logic is positioned as an analytical framework and Design for Service is positioned as an innovation approach. The Design for Service approach has the capabilities to explore existing service systems and

propose new ones through design-based approaches as shown in Figure 9-1.

Empirically, I have primarily attended to the second proposition through the exploring of how actors, the users and customers, are involved in the early phases of service innovation. This focus was developed in response to the suggestion for further research developed in Wetter-Edman *et al*. (2014):

> Empathic methods are tailored to the specific demand of resource integration and value co-creation at hand, and the effects thereof are well known. However, what principles that underpins this tailoring, and how empathy actually is used in Design for Service is largely unknown.

Situating designers' contribution in Design for Service

In Design for Service, perspectives from research on design practice and service logic are brought together. In this thesis I have taken specific interest in what *designers* and their *design practice* contribute when they act as intermediaries between the user and the firm. Based on the results of this study I argue that:

Designers' contribution in Design for Service is that they *interpret* and *reformulate* existing service systems and *propose* new ones based on the users' experiences.

The designers in this study *interpreted* and *proposed* value co- creation possibilities through materialization and rematerialization.

The design materials used in these materializations were users' accounts, stories and the designers' emplotted narratives. I suggest that the designers in this study, by the means of stories as design material, *interpret* and *reformulate* users' experiences through narrative inquiry.

I will in the following sections expand these aspects of designers' contribution. This will be done through discussing: firstly designers as interpreters of experience, secondly reformulation of value co-creation situations, thirdly the narration of presents and futures and finally attend to the stories as visualizations.

Designers as interpreters of experience

Stories are, as Dewey proposed, the linguistic expression of experience (Dewey, 1938). In line with this, the interpretation of the users' stories - the users' accounts of experience - as design material can be seen as interpretation of experience.

The role of narratives in the interpretation

Although the use of stories in design, and to see design as stories is not new per se, this study contributes with in-depth knowledge on how designers transform accounts from users into stories carrying specific and deliberate meaning. Grimaldi *et al*. (2013) bring forward the increased attention given to stories and narratives in design, and Kankainen *et al*. (2012) requested further research regarding the role of narratives in service design. In addition Helkulla and Pihlström (2010) taking a service innovation perspective, previously argued that narratives are beneficial for capturing the complexities of service, including cultural and social aspects of events. It has also been suggested that ethnographic stories operate between the world of the firms and the world of the consumers to bridge the distance between these different spheres (Cayla & Arnould, 2013).

The analysis of the case showed that despite an explicit co-design approach and expectations of physical visualizations both in the workshop setting and in the subsequent design work, visualizations such as mappings, journeys or blueprints were not a part of the design practice. Instead talk and stories were central in these various settings as discussed in Chapter 4.

In line with the directed storytelling process presented by Evenson (2006), the stories were the material on which the designers performed their analyses, although the stories of experiences in this workshop were collaboratively constructed in the sessions. Evenson stresses the stories' roles as carrying meaning about the informants' experiences and as pointers to the most significant ideas or themes central to an experience. This is in line with what I see in the material from this study, although I have not studied how the designers analyzed the material in detail. Instead I focused on the ways the designers rematerialized the stories,

Evenson does not account for how the concepts that came out of the directed storytelling process were re-presented to the client. However, in line with her study I propose that the stories are important starting point for the process. In addition I argue that the narratives become design material per se. The users stories are materials that are re-assembled in a coherent emplotted story. The reorganizations of disparate information into a coherent plot are in line with narrative inquiry (Connelly & Clandinin, 1990).

Throughout this study I have adopted a pragmatist perspective on design practice and used a narrative approach for understanding what 'has been going on'. From this I propose that the designers in this study engaged in narrative inquiry for interpretation of users' stories to the client company. By means of narrative inquiry the designers: 1) work with interplay of experiences and practices through emplotment, and through this exhibit existing and propose new value creating situations. 2) materialize context and experience in a meaningful way for service innovation purposes.

Interpretation through experience

In Design for Service design based methods and approaches are brought forward, and the contributions are discussed on a conceptual overarching level, without explicitly mentioning the professional skills connected to the trained designer. Thus the suggested areas for future researched areas are focused on the more detailed practice level, which this study responds to.

For example empathic methods are proposed as means for understanding users' contexts and experiences. The competence to trust equally your embodied knowing and information received is deeply rooted in artistic training; this is often framed in design research as empathy, or the use of empathic methods. The meaning is that through the method the person experiences a situation, lives through the event and thus integrates the event and action in his or her knowing, making it possible to continue to use in coming professional or personal situations. Designers are trained in using themselves - their own experiences, both lived and integrated experience, and experience in the situation in their professional practice. In Dewey's terms this is the *reflected* or *indirect*

experience that over time is integrated in the persons being. Thus the use of empathy is the instrumental use of lived experience for a purpose.

The studied case shows how the designers made use of their experience of being in the situation with the farmers together with the materialized accounts. Moreover, this became apparent in the analyses of the materializations where my lived experience of having taken part of the workshop situation and meeting with the partners beforehand was crucial for understanding what the instantiations captured.

Reformulating value co-creation and co-destruction practices

One aspect of design practice worth bringing forward in this regard is the reframing of the situation that from a pragmatist perspective can be understood as the 'problem-solution' definition. Before engaging in a deeper inquiry there is a need to understand if right questions and problems are being stated. Therefor designers tend not to state the possible solution or take a direct quote or account for granted. Instead, the account is questioned as for what it signifies. In the studied case, for example, designers did not ask for explicit solutions or ideas, but wanted to understand what lay behind the stated problem. If an idea is articulated, the underlying need or situation is explored rather than the explicit idea per se. The process can be seen in the reformulation of specific accounts of experience into scenarios, most prominently in the 2010 scenario where the farmers' experiences of good and bad service situations are reformulated and organized in a plot. Through the narratives the designers used the particularities of individual experiences as a starting point. The workshop and the collaborative construction of the instantiations were part of understanding the users' experiences in the interpretation.

In parallel, the designers through materialization paid attention to contexts of the experience and the practices that were part of the experience. These consisted of paying attention to the relations between artifacts, systems, and people, implying that the focus of design is moved from the interaction with a specific artifact per se to the relations and matters that are possible to change and propose – new value co-creation possibilities. A subjective experience can never be designed, of course.

In that sense the experiences are moved from a subjective individual sphere to something more general. However, in the rematerialization the expression of experience is there. In that sense the designers move between the particular experience and the more general practice.

The reformulation in this study is done through the designers' materialization and rematerialization practices, which will be further discussed in the next section.

Materialization of experience and context

As presented in Chapter 7 and 8 the narratives focus on the users' context and practice rather than individual products or services. The instantiations are used for materializing the entangled experiences of use, context and practices and for proposing new practices.

Context is treated as a fairly abstract concept in the service logic literature; this study shows how context can be made graspable through the construction of stories of both existing contexts and future ones. The designers integrate information from both the user and company's context in proposing new service opportunities. In so doing the designers show the company the relevance of understanding what their activities mean and how they impact the user's organization. Through this rematerialization the integration of resources from both company and farmer is made explicit in the future scenario.

However, the designers in this study do not only attend to the practices, but also explicitly take as starting point the farmers' experiences through questioning previous specific service experiences and interactions between the farmer and the firm. Moreover, they open the scope of inquiry to also involve the life as a farmer at large, and as such reach out into the context that is outside the direct interaction of the firm, or, in the terminology of Grönroos and Voima (2013), the customer sphere.

Operationalization of value co-creation and value co-destruction through materialization practices

Operationalizing refers to the designers making it possible to 'operate' on, or to act on for the organization. For example, this is done in the 2010 scenario though rematerializing the present by narrating value

co-destructing situations, such as when the farmer has not washed his equipment before the service technician arrives. This could be blamed on the farmer himself, that he doesn't take care of his equipment or has bad planning. Despite this, the designers propose that The Company complement their service offerings with a washing service. In another scene narrated in the same scenario, the farmer phones to get software support late at night. At his hour the service desk is supposed to only take care of emergency calls; however, they respond to the farmer's request. This dual representation of what actions and situations co-creates respectively co-destructs value (Echeverri & Skålén, 2011) is effective in communicating what the farmer experiences as important.

The designers' interpretations of the users' accounts result in two distinct stories with the purpose of communicating two distinct and different experiences from the farmer's perspectives. In the first scenario the experiences are not all bad – but they are not all good either, meaning that the aesthetics of the experience is not good. There are flaws to it, there are occasions where the farmer doesn't feel comfortable and feels trapped (given that the farmer wants to feel independent and free). Using a service logic framework it is possible to understand the misfit of intentions and value creation opportunities in the first scenario - interruptions, un-planned breakdowns and interactions that are not supported. The scenarios display both how The Company's representatives and the farmers act along the continuum from value co-creators to value co-destroyers.

Narrating the present, proposing the future?

The Design for Service framework states that design understands present service systems with the purpose of proposing new ones. In the study presented in Chapter 7, describing the two scenarios and through a narrative analysis identifying them as having the plot of the present as Romantic Tragedy and the proposed future as Epic Romance, I stated that the real contribution was the Day in a Farmers life 2010 scenario. This emplotted narrative reformulated the farmers' accounts of experiences into a coherent whole, while zooming in on scenes where both value co-creation and value co-destruction practices were materialized.

The presentation of the scenes and the scenario caused engaged discussion in the meeting. The scenes were described in a level of detail that engaged the people, and they felt involved. It can be suggested that the rematerialization that took place in the meeting was effective in the way that it did what it set out to do. And it can also be suggested that the designers were successful in expressing what they aimed for.

Although the 2015 scenario proposed a future, and an attractive future especially from the farmer's perspective, this scenario did not cause the same engagement. From a service logic perspective, the improved service system that was proposed included changes in resource integration and developed new value co-creation propositions. In line with a design-based approach, the scenario was developed and communicated through the perspective of the user, and expressed his experience of being part of this new service system. But this scenario did not evoke the same amount of discussion and engagement as the previous one.

I will come back to the difference in effectiveness between the two scenarios in the next section. In this section I focus on the contribution of designers for reframing and reformulating the present, rather (at least in this case) than proposing the future. In this case reformulating can be related to the concept of frame creating (Dorst 2011). Dorst proposed that frame creating is unique to design reasoning, working along the equation 'what' plus 'how' leads to 'value'. In the two scenarios, it can be argued that the frame can be changed through the change of plot, from the user as dependent on and trapped in the organization to an independent user that is in control. The plot captures both the 'what' and 'how', and suggests a value. Thus the reformulation of the experiences through the emplotment proposes altered frames and exposes potential value facilitating possibilities for the client organization. However, this was achieved foremost through the narration of the present, not the future.

The relevance of the stories

As proposed above, the 2010 scenario is the more effective one. By effective, in this setting I refer to how relevant the information in the scenarios is perceived to be. The relevance of the stories can be judged by their applicability: the 2010 scenario comes out the winner through the

engagement and also the subsequent work put in by the company to resolve some issues brought forward in this scenario.

Thus the suggestion that designers' contribution lies within the realm of proposing the future is somewhat questioned. In this case the future opportunities are made possible to discuss through the narration of the present, at the cost of the future scenario. The future scenario, as discussed in Chapter 7, in my reading is not understood as a possible option for the people taking part of the presentation. The how is not within their possible range of action and responsibility.

This can then be discussed as either a problem of not having the right people in the room or of not having had the possibility to access all the relevant information for making a relevant future proposal, since the service design pilot exclusively focused on the user's perspective. However, it can also be discussed as a problem of representation. Potentially this indicates the importance of aesthetic competence in the reshaping and reformulating of the users stories into emplotted narratives - the scenarios.

Stories as visualizations?

Design's role and contribution in service design, and also in other related design practices such as Design Thinking, is often connected to visualization skills. In this study as mentioned, I was surprised that the designers did not use visualizations such as mappings and customer journeys, which was expected according to literature. However, if the visualizations are looked at as 'external representations' as Blomkvist proposes prototyping to be (Blomkvist, 2011), then the scenarios are definitely visualizations but using talk and stories as design material.

Frequently examples from practice and from marketing research point out that use and trust in narratives complement perspectives related to the more rational decision making, evidence-based type of user/customer research approaches as discussed in Chapter 5. Cayla and Arnould (2013) emphasize that the sphere of the user/customer and the sphere of the company/organization can be bridged through stories. In this thesis I suggest that the designers' interpretation forms that bridge and depending on that interpretation, the bridge will be more or less

effective as discussed above. In addition I propose this in part concerns how they are rematerialized.

The aesthetic aspects of stories as visualizations

In relation to this study the relation between process and outcome raises the question of what then can be seen as an aesthetic design practice in relation to stories as design material. This study shows that stories are an easily accessible design material, in that sense that to tell a story is something 'we all can do'. If we then return to the understanding of Design as purposeful design then designers need to develop tools and approaches to explicitly deal with stories.

I would argue that interpretation and the materializations are relevant, however the rematerializations done through the scenarios are somewhat naïve. Specifically with latter scenario, I doubt that these experienced designers would have done a similar over-simplification using a design material with which they were more familiar. This is important to avoid falling into the same trap as design thinking has been critiqued for, and as discussed there are several similarities between the approaches taken in service design and design thinking.

Just as the design patterns movement was critiqued for lacking insights in designers' practice, the managerial version of design thinking is critiqued for lacking exactly the same - skills attributed to design as professional practice (Jahnke, 2013; Kimbell, 2011b; Tonkinwise, 2011). Separating the act – the practice of designing – from the process of designing is really not possible in my view. The close connection of the practice for the outcome as discussed by for example Botero (2013) and Stigliani and Ravasi (2012) relies on the designers' artistic training and what that implies in relation to aesthetics and experience.

Bailey (2013, p. 1) poses the question "It is assumed that design tools and methods can be introduced and disseminated to non-designers, but if tools and methods are all it took to design services, what is the future for the 'designer'?". If the designers' artistic competence and training is not valued and articulated, I believe that the future for the 'designer' is quite limited. Therefor it is important to find frameworks that allow discussion of the contribution of both methods and professional practices. Ironically, the managerial notion of design thinking despite the relevant

critique as mentioned above, has opened the doors for discussing the role of design for and in business. In a sense it has paved the ground for the possibility to construct the Design for Service framework.

The results in this thesis propose that designers act as interpreters in between the user and the company, and as interpreters they contribute with reformulation of users' experiences and present value co-creation, and thereby propose future value creation opportunities. The implications of this suggestion for the Design for Service framework are discussed below.

Implications for Design for Service framework

The inquiry in this thesis set out to develop and refine the emergent Design for Service framework through a field study of service design practice. Through this inquiry the implications for Design for Service framework can be summarized in the following four implications.

First, the development and articulation of a Design for Service framework connecting to two hitherto fairly unconnected theoretical areas treating the same subject matter – development, innovation and design of new and improved service/value creation opportunities. The framework connects the service logic's concepts of value creation, resource integration and systems perspective (sparingly treated within the design discourse), with human centered design-based approaches and methods on how to understand and implement users' experiences and contexts for improved service systems. This connection thus allows a conceptual move from design for services as an explicit category and discipline to design for value creation articulated as a mindset. Further the application of the analytical concepts proposed in the framework in the empirical analysis *confirms* that they are useful for articulating design's contributions in terms of value (co-)-creation for example.

Secondly, the articulation of tensions and underlying assumptions of users' involvement in discourses involved in service design and innovation made it possible to situate designs role and contribution as interpreter within the Design for Service framework. The comparison highlighted that in service innovation literature this intermediary role was not discussed. Nevertheless the service logic perspective requires

methods and approaches that can grasp not only resources but also the activities and interactions during co-creation of value-in-context (e.g., Edvardsson *et al*., 2010). Thus spelling out the need for this competence, and through the empirical study proposes that designers can fill this role as interpreters.

As a result the involvement of designers in the relation between the firm and the user can be seen as an additional complication, or an unnecessary detour from a service innovation perspective. However, below I discuss how this intermediary role is important for understanding the user's experience and consequently enriches the service innovation process. This articulation of an intermediary role *expands* the existing framework.

Thirdly, situating designers' contribution as interpreters of users' experiences for reformulating presents and proposing futures *develops* the framework. This is done by showing that designers interpret users' accounts through materialization, rematerialization and narration. The designers use narrative inquiry as the means for their interpretation and their position between the users and the company. In so doing the designers can be argued to take an interpretative position between the users and the company by the use of narratives as means for the interpretation, rather than by the reformulation of the narratives. The designers and their work are proposed to be the bridge between the user and the company sphere instead of the stories per se as was suggested by Cayla and Arnould (2013). The narrative analyses together with a pragmatist position argue that the stories are impersonators of the users experience, supporting the view that the narratives becomes representatives of users' experience (Vaajakallio, 2012).

Fourth and finally, highlighting not only that design methods and practice *can* realize service logic, as previously proposed in Wetter-Edman (2011), but also showing *how* design practice can be a part of this realization via understanding of and through experience, *strengthens* the framework. This thus promotes methods and approaches where the Situation and the professional use of experience such as in trained design practice are important. The following sections reflect upon the research process and discuss implications for research and practice.

Reflection on the research process

> The original indeterminate situation is not only "open" to inquiry, but it is open in the sense that its constituents do not hang together. The determinate situation on the other hand, *qua* outcome of inquiry, is closed and, as it were, a finished situation or "universe of experience". (Dewey, 1938, p. 105)

According to pragmatism, it can be emphasized that the truth and quality of the research outcomes always need to be judged in the situation and through their usefulness. In the presented study the inquiry and the problem setting stemmed from my practice experience, in combination with extended studies of theoretical areas that enhanced, deepened and developed the understanding of the studied situation. The theoretical framework was developed in close relationship with the activities and studies of the field. A key feature in this development has been not only to look for straight answers but also to search for and develop new challenges and possible problematizations for the subject at hand.

I have used my design practice experience in the judgment of what has been considered surprising, as well as for deciding what has been important. In addition I have explored and compared different bodies of literature with the purpose of challenging assumptions from my previous design practice and what has been discovered on the field.

The inquiry into the field has been conducted through the use of methods based in social sciences. The research process has moved from being based in ethnographically inspired methods on the field, to analyzing specific outcomes of the designers work. In so doing the study have included approaches with close affinity to the data material, as the first analyses of the field study, extensive comparative literature reviews, constructive approaches in the narrative plot analyses and theoretically informed thematic analysis of the instantiations. Thus attending to the pragmatist instrumental position of the use of multitude of methods and techniques of inquiry that are intimately coupled and develop together with the subject matter of the inquiry.

My inquiry can be framed as follows using Stompff's (2012) structure:

What is going on when designers approach new areas with user

centered design practice and act in an intermediary role between the user and the firm for the purpose of service design?

It seems that in this case they use stories rather than visual mapping methods.

If they use stories, **then** what does that mean? What do they [the designers] achieve through this use of stories? How can that be understood, through narrative theory and materialization?

Try – application of a narrative theory and the concept of designers' materialization practice on the field material.

Judgement – Did this inquiry bring the subject matter closer to being understood as a whole, did it produce a 'product' an object that can be used productively new inquiries?

This inquiry produced the conceptualization of designers as interpreters of experiences through materialization practices and narration, within a framework integrating design and service logic perspectives.

This settles the doubtful situation in two ways. The stories seen as unfamiliar in this setting are now understood as means for interpreting users' experience. Thus the use of stories as design material is not random. The stories capture aspects of service that traditional visualizations do not. Secondly, the Design for Service framework repositions design from a phase of development to a core competence for understanding, proposing and realizing value creation in service logic. Accordingly it is possible to position designs contribution as interpreters through filling a gap that previously did not exist.

In regards to the transferability and generalizability of the results, this relates foremost to the empirical study. The study is limited to a single case and the intention has been to show what has been going on in as transparent a way as possible. The collaboration situated in the specific context of industrial service and their customers can be considered as a limited niche. However, the unit of analyses in this study is not limited to this specific context. People tell and retell stories in various contexts, the research interests in this study was focused on how these stories were captured and interpreted through materialization and rematerialization. There are thus reasons to believe that the subject matter developed in this thesis is relevant in other contexts were designers act as intermediaries between organizations and their users.

According to Dewey, judgment of a successful inquiry is if the result,

the final object can fruitfully be used in further development of thought and practice. In the next section I will discuss the implications of this study for research and practice.

Implications for Research and Practice

The exploratory character of this research project both in regards to the construction of the framework and the empirical study answers only a few of the issues raised throughout this thesis. Below I bring forward issues that I found particularly interesting and also urgent to address in further research.

Suggestions for further research

There are of course many possibilities for further exploring Design for Service. In this thesis I have applied a pragmatist position on inquiry in the research process and touched upon pragmatist experience in the interpretation. I suggest taking an explicit pragmatist position in understanding experience would be fruitful. This would be relevant both for further exploring the interplay between analytical concepts and practice as well for exploring how experience are part of this exploration.

Further the Deweyan understanding of *an* experience in relation to experiences and service as value creation could be interesting to explore in more detail, as well as what is to be seen as aesthetic expressions in Design for Service. Understanding of experience from this perspective has been explored within HCI and interaction design (e.g., Wright & McCarthy, 2008). This study suggests that it can be productive to connect more in depth with this body of research.

For design research the question of stories and narratives as design material highlights several interesting issues for further research. As previously mentioned, service design and design thinking have been critiqued for not including aesthetic practices (Tonkinwise, 2011), but what are aesthetic practices in this context? In the designerly use of narratives as design material, how does aesthetic practice become visible or not? And what does a designerly approach lack? This is not least relevant in the light of the increased interest for narratives in design

research (e.g. Grimaldi *et al*., 2013).

Thus there is a demand for methods and approaches for developing and retaining aesthetic competence in narrative design material. These should preferably be developed in close collaboration between research and practice

Along the same line the materialization practices in co-design situations bring forward a similar question: To what extent can the materialization and rematerializations be seen as aesthetic expression? I suggested above that the effectiveness of communicating could be seen in relation to aesthetic expression, but there is need for more research on this topic.

Further, the relations and potential tensions between the position of designers' contribution as interpreters of experience in this thesis, and previous conceptualizations of designers as brokers of knowledge (Hargadon, 1997) and interpreters of socio-technical contexts (Verganti, 2008) needs additional attention.

In regards to the discussion on the 'design object' in Design for Service, there are interesting developments relating the design-based concepts of use-after-use and design-after-design with value (co-)creation spheres (Hatami, 2013b). The evolving design space as conceptualized by Botero (2013) is a relevant concept to connect to this discussion for further developing the Design for Service framework of value creation in designing.

Implications of the above results for (design) practice

The implications for practice follows to some extent the suggestions for research mentioned above. This includes showing that the Design for Service framework has relevance and holds implications for design practitioners. The broadened scope of design and the easy access to stories as design material has possibilities but involves traps and are in need for further development.

For example, the use of narratives as design material requires skills development for designers, at least for designers with a product design background as in this case. In the study the designers did not attend intentionally to the complexities of the narratives as design material, for example, in discussing what the plot expressed and how it could be read.

Thus there is a need for developing what could be called an interpretative repertoire for designing in this context and with stories as design material.

Other areas include strengthening existing research proposing talk and stories to be relevant design material for service innovation. However, this type of research should also bring forward the practical implications of such a proposition relating to aesthetic practice and judgment.

Another opportunity is emphasizing the importance of participation in user research activities. Taking a design approach, involvement of users is almost mandatory, but this study also emphasizes the importance for managers to take active part in these activities. The complexity of the stories and experiences that are told during this type of workshop cannot be captured in print or in images. Instead the narratives told and the crucial aspects thereof are embodied through the memories of the specific farmers who told them and through their interactions with others. This was also mirrored in the research process, where the first analysis only took the instantiations into account. In the comparison of the coding by the two researchers it became obvious that the researcher observing the workshop implicitly drew on her experiences, while the other researcher found it extremely hard to make sense of some descriptions.

Professional service designers increasingly adopt methods and rhetoric accepted by practitioners in the business community in order to communicate effectively. As I have argued throughout this thesis, it is important to express design knowledge in a vocabulary that is understandable by other disciplines. However, this should not be at the expense of designs' core competences, which are difficult to capture in management lingo. Thus I believe it is of utmost importance to articulate designs contribution in terms of designers' artistic competence. My hopes are that this thesis will be helpful for this articulation.

10

Conclusions

This final chapter of the thesis summarizes and articulates the conclusions of the inquiry. The overall inquiry focused on connecting design and service logic through development of the Design for Service framework, with an explicit focus on designers' contributions as intermediaries for involvement of users.

In the introduction the following research interest were articulated:

> *How can design's contribution (in relation to involvement of users) be productively framed through Design for Service?*
> *How can designers' contribution be understood when designers act as intermediaries in between a firm and users with the purpose of doing service design?*

This was further detailed in and connected to the Design for Service framework as discussed in Chapter 9. In the following sections developments of Design for Service are proposed, designs contribution as driver of change and as an intermediary are discussed.

Based in this study I propose that empathy is used as a means for interpretation. I argue that designers are professional interpreters of and through experience through materialization practices and narrative inquiry. In so doing the designers gain understanding of what could be

perceived as value creating (and co-creating) activities.

As discussed, the use of aesthetic practices and tools could be provocative and even threatening for an organization. Maybe the use of narratives and stories is not as threatening as more classical design tools such as sketches and prototypes that really 'show off' artistic skills. Compared to traditional design outcomes the narratives can easily be taken onboard and reproduced by non-designers in the company. Despite the narratives following another logic than the traditional business logic, they are not as difficult to either accept or to embed as a more expressed artistic epistemology. Indeed, narrative knowing is something that we all accept as being human. The openness and the complexities embedded in the stories are aspects that we are used to handling in our everyday life.

I here propose that Design for Service might serve as platform where both practice and research in design and service marketing/management can meet on equal grounds. The study shows that Design for Service is relevant and useful for articulating design practice contributions and thus functions as a bridge to other knowledge areas. In addition, Design for Service serves as a platform for integrating and synthesizing knowledge from multiple perspectives, as is shown in this study. As discussed, using a service logic framework for analyzing what design practice achieves shows that design practice brings focus to both customers' individual value creating activities as well as direct and indirect interactional co-creation activities. The framework allows for design knowledge, as professional practice to contribute through its own epistemological grounds.

Refining Design for Service

The framework is in its early stages and there are many refinements, definitions and developments still to be made. The framework is conceptualized on an overarching level; in this thesis I have predominately addressed the second proposition in the framework through analyses on a micro level.

The second proposition is framed as follows in Wetter- Edman *et al*. (2014) :

> *Design for Service provides approaches* (set of tools, competences and a mindset) for understanding actors and how their experiences are formed in contexts as a result of how resources are integrated and operated on. In particular, it considers how re-configurations of resources in context may come about through engaging the involved actors using empathic tools and techniques.

Based in the findings, I suggest the second proposition be elaborated to include *interpretation of and through experience*, see fig. 10-1 and reads then:

Design for Service provides approaches (set of tools/methods, competences and a mindset) for understanding actors and how their experiences are formed in contexts as a result of how resources are integrated and operated on. In particular, it approaches how re-configurations of resources in context may come about through *interpretation of and through experience* in engagement of the involved actors using empathic tools and techniques.

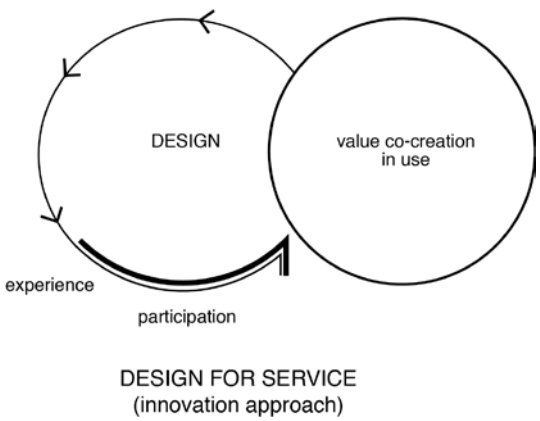


Figure 10-1 Developed 2nd proposition

The results also have implications for the first proposition where the main point as now stated is the understanding of existing service systems for proposing new ones. The findings in this thesis suggest that the *reformulation of existing* value co-creating and *value co-destructing* practices are at least equally important. Thus the model is complemented with a close-up of the arrow moving from the present to the future value co-creation spheres where several iterations are proposed to bring forward the reformulation of existing situations, see fig. 10-2. The opposing directions of the arrows suggest that the reformulation both facilitates and causes friction.

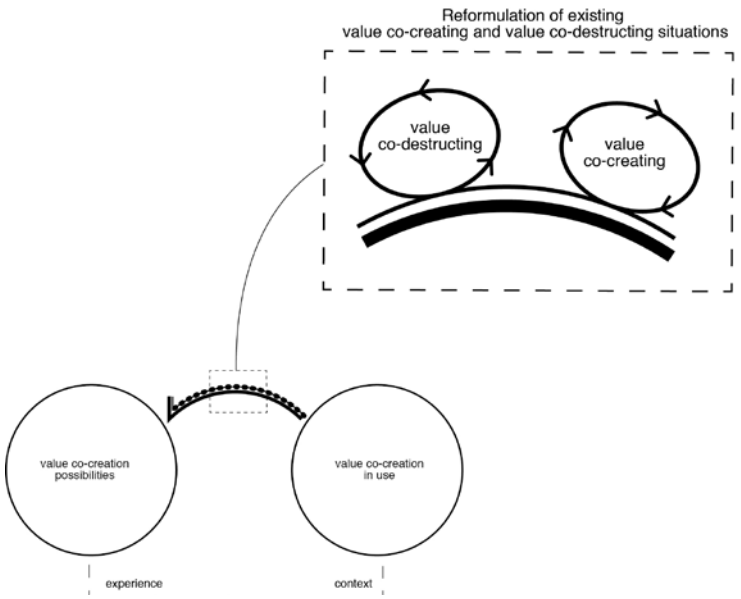


Figure 10-2 Developed 1st proposition

Design for Service as proposed in this thesis allows for multiple interpretation. It lets design be what it is on its own proper knowledge ground and as such brings forward the complementary aspects of both design and service research and practice. This thesis has complemented the framework with a field study on a micro-perspective thus articulating the design practice contribution instead of the methods per se.

The interpretation of experience as a driver for change

In the introduction a shift in design practice from attending to relatively simple products to complex systems was discussed. Similarly a more general change in our society was brought forward; from an economy focused on industrial production to where the service sector today represents more than 70% of the gross domestic product in developed countries (The World Bank, 2013). Further I suggested that designers followed this general trend.

Nevertheless the study serves as one example of how designers' interpretation and use of narratives contributes to this shift. This shift implies a change from a product or single artifact focus to a more extended understanding of the actors, roles and resources involved. In the studied case what lies latent in the strategic positioning of the company is to expand their service offerings. The service design workshop highlights this change and shows what 'it' could look like once implemented: from being an aftermarket service provider with the main purpose to change liners and sensors to a partner who attends to the farmer's situations both as a business partner and having a personal life.

Depending on the literature used as a sounding board, this shift can be described as a move 1) from a goods logic mindset to a service logic mindset, drawing on the bodies of literature extensively discussed in this thesis; 2) from a product focus to service focus as in in the servitization literature where functions and increased support of customers' processes are signs of this shift (e.g., Oliva & Kallenberg, 2003) and 3) in a similar line of thought, this shift can also imply a change of meaning in the relation between the company and the customer relating to the literature on innovation in meaning (e.g., Verganti & Öberg, 2013). In this shift the driver for proposing change is the explicit interest in and interpretation of users lived experiences. Through emplotment of the narratives the designers interpret, reformulate and propose new meaning. By changing the genre in the two scenarios the roles, relations and intentions built into the service are altered. The difference between the two scenarios is what is relevant and of interest. Through synthesis of experience and practice and the reformulation into scenarios the designers give the service new and/or extended meaning for the company and their customers.

From facilitators to "complicators"

The role of designers as facilitators is most often related to a specific situation when users are involved as in a co-design workshop. In this interaction, designers in their professional role are framed as being the means for enabling access to users' latent or so-called sticky information. If the process relies on co-design approaches, the techniques and tools used in the interaction can also be framed as tools for facilitation.

This conceptualization assumes that designers are part of the firm-user relation, which is most often not the case in descriptions from the service innovation literature. To add this resource might be seen as a costly and unnecessary complication of the process. From a service management perspective direct involvement with the users is most common and the role of an intermediary resource is rarely mentioned.

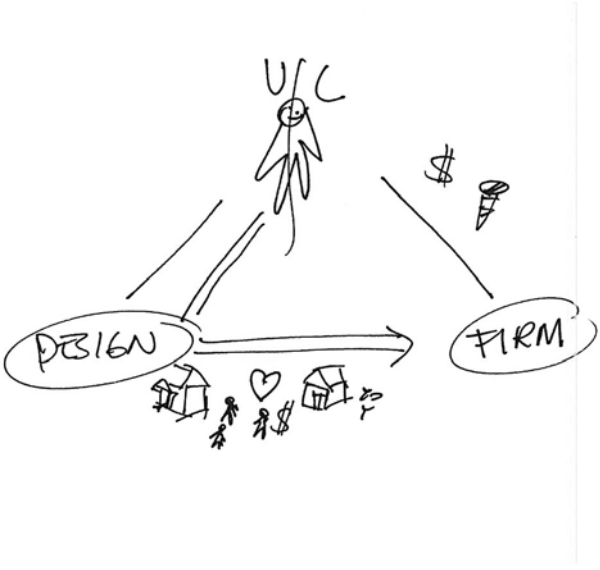


Figure 10-3 The designer as interpreter as complicator

Nevertheless, this additional part of the process does add several things. Through the interpretation and reframing alternative perspectives on the firm's service offerings were brought forward. Adding the design competence allows the firm to focus on other things than for example pricing, in the relation between the firm and their customers. This was proposed in the literature review where the relations and rationales were discussed. The traditional ways of getting information about the users are either through 'The Whispering Game' or through a bi-annual customer survey. These give limited information and insight, focusing primarily on issues of direct importance and relevance from a company perspective. The designers in the studied case explicitly focused on the farmers' experiences, and reframed them through a process of narrative inquiry into scenarios. Thus they open up the relation to include other dimensions such as the role the organization plays in the user's everyday life, see fig. 10-3 .

Thus suggesting that what the designers contribute with goes beyond brokering of information and knowledge (Hargadon, 1997; Verganti, 2003). The designers change fundamental dimensions in the narratives through their interpretation.

Epilogue

From one perspective it can be argued that I have followed the same path as several other scholars interested in the potential contribution of design to innovation and business success, looking for concepts in adjacent and more distant discourses that could help explain and position design and designer's contribution. I also use the service logic lens to describe what design does in this setting. Doing this risks reducing design to something that is explainable by the vocabulary known by 'the other': say, the four P's of marketing becoming the four Power's of design (Borja de Mozota, 2006) or according to the value chain (Borja de Mozota, 1998). My intention in a way is exactly the same, using service research/logic literature to frame design in a way that makes it understandable and useful from other perspectives. However, I have also through this work pointed out weaknesses and proposed extensions of these bodies of literature based on what design practice and research can contribute.

In addition to profound interest in the subject matter that has been my personal driver throughout this PhD work, yet another thing has been in the back of my mind pushing me to develop the work the way it has been developed. A large frustration for me has been the incapability of design (practitioners and researchers) to make their voices heard in forums other than the ones consisting of the people already convinced. The discrepancy between the academic traditions in design and more traditional management and marketing research is vast. One explicit purpose for me when deciding to leave the active design practice (at least for a while) and engage in an academic practice instead was to attempt to make design and design's contribution understandable in an expanded context. This thesis is the final step in the first part of a continuous inquiry that has just begun.

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